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Study of Comparative Costs of Section 56/1 and Section 6 Housing

March 1985

STUDY OF COMPARATIVE COSTS OF SECTION 56/1 and SECTION 6 HOUSING

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1. BACKGROUND TO STUDY

There is growing controversy/concern over the relative short and long term costs of providing housing under the Canada Mortgage and Housing Corporation's (C.M.H.C.) Section 56/1, Non-Profit and Co-operative Housing Program, compared with the costs of providing similar housing through the private sector.

In response to these concerns the Research Division of C.M.H.C., in April 1984, invited proposals from a number of consultants for the preparation of a study of the comparative costs of section 56/1 and section 6 projects.

In May 1984 Barnett Treharne Yates Ltd. (B.T.Y.) were appointed to undertake the study.

The objectives can be simply put as follows:

1. To analyse a selected range of projects developed by both the private sector and section 56/1 agencies.

2. To compare the results of the analyses on both a local and National basis.

3. To identify cost differentials between projects developed by the private sector and each of the 56/1 agencies.

4. To establish reasons for the differences.

5. From the foregoing to comment on means by which the affordability of modest housing can be improved.

It should be appreciated that for many of the projects analysed, detailed cost information was not available. Estimating techniques were therefore used to break-down and allocate project costs to the various dwelling units,

1. BACKGROUND TO STUDY (cont'd)

facilities and construction elements. Whilst this approach permits objective high-level comparisons to be made, comparisons become more subjective at finer levels of detail.

To facilitate comparisons, all project costs have been adjusted to a common date (January 1984), using Construction Data Systems Time Cost Index for seven Canadian cities.

The study could not have been completed without the co-operation of C.M.H.C. staff in Ottawa, Montreal, Toronto, Calgary and Vancouver.

2. EXECUTIVE SUMMARY

Presentation Report Organisation

Section 3 presents a summary of the findings in each of the four cities.

Section 4 identifies factors that influence construction costs.

Section 5 outlines the approach taken to conducting the study. Sixty projects from the major centres of Montreal, Toronto, Calgary and Vancouver were selected by C.M.H.C. for case study. Although projects were selected to reflect the range of types being built by Section 56/1 agencies and by the private sector, it should be recognised that a sample of this size cannot be fully representative. The selection process also revealed that, during the period under review, there were fundamental differences between the types of dwelling units being built by the two sectors, making it impossible, in many instances to compare similar projects. Project data was extracted and assembled in C.M.H.C. local offices and project analyses were completed. The data was then tabulated, costs were adjusted to the same base in time on a City basis, and the results analysed.

Section 6 summarises data from the sample projects and identifies reasons for differences in cost.

Section 7 addresses relative operating cost considerations.

Section 8 contains a set of cost and specification data on each project.

2. EXECUTIVE SUMMARY (cont'd)

Study Findings

The principal findings from the cost studies may be summarized as follows:

. The construction and soft costs, per square meter of building area, vary widely for similar building types within programs and within cities. Although average costs for 56/1 projects are generally higher than those for private sector projects, there are exceptions. For example, the private sector high rise buildings in Toronto are more expensive than the 56/1 high rise buildings, and in Calgary, two very economical 56/1 turnkey row housing projects are lower in cost than the single example of private sector row housing. These exceptions reflect the differences in project type noted in section 1.

Average Construction and Soft Costs ($ m²) of Projects in Sample

	Section 56/1	Section 6
Montreal:		
. Row housing	338 (97%)	348
. Low rise apartments	370 (117%)	316
. High rise apartments (Snrs)	631 (128%)	495
Toronto:		
. Row housing	378 (131%)	288
. High rise apartments	468 (72%)	649
Calgary:		
. Row housing	307 (55%)	558
. High rise apartments	627 (113%)	556

2. EXECUTIVE SUMMARY (cont'd)

Study Findings (cont'd)

Average Construction and Soft Costs ($ m²) of Project in Sample

	Section 56/1	Section 6
Vancouver:		
. Row housing	574 (134%)	429
. Low rise apartments	590 (101%)	584
. High rise apartments	702 (- %)	-

. Although no uniform pattern emerged which consistently accounted for the generally higher costs of 56/1 projects, the following factors were identified as being the most important:

- Section 56/1 projects often include a wider range of dwelling types (i.e. by bedroom count), which make the designs more complex and the construction less uniform and repetitive.

- The dwelling units in 56/1 projects are usually smaller than units with similar bedroom counts in private sector projects. As additional space can be provided at approximately 50% of the base building cost, this will lower the square meter cost of private sector projects relative to 56/1 projects.

- In terms of design efficiency, the ratio of envelope area to floor area is significantly higher in 56/1 projects, particularly in projects acquired through the design/tender approach.

	Ratio Envelope Area/Floor Area	
	Section 56/1	Section 6
Row housing	1.34	1.27
Low rise apartments	1.20	0.71
High rise apartments	0.69	0.52

2. EXECUTIVE SUMMARY (cont'd)

Study Findings (cont'd)

While the two previous factors obviously result in higher ratios, more elaborate designs can also have significant effects. As well as increasing construction costs, these high ratios have adverse effects on maintenance and operating costs. For example, the energy saved by improving the efficiency of the envelope components can be lost through additional envelope area.

- The 56/1 projects that are acquired through turnkey contracts are usually less expensive than those acquired through a design/tender approach. In many cases, the cost differences for similar types of project are substantial and the turnkey projects are often in the same cost range, on a unit of accommodation basis, as private sector projects.

Reasons for the higher costs of design/tender projects include:

. projects are often more complex, as the designers must address the requirements of a wide variety of future occupants.

. more direct involvement of client groups, which generates pressures for higher standards and provides greater opportunities for costly changes in designs.

. comprehensive working drawings, coupled with more involvment by designers in supervising construction (While this certainly improves the quality and potential durability of the building, it can increase labour costs significantly).

. precise specifications of materials and components, which limit a contractor's flexibility to shop and barter for

2. EXECUTIVE SUMMARY (cont'd)

Study Findings (cont'd)

"best deals" and, particularly for mechanical and electrical installations, require higher quality equipment than that typically used in residential projects.

- There are significant differences between the levels of soft costs for co-op projects in different cities (e.g. as a percentage of total costs, soft costs in Montreal and Vancouver are approximately half those in Toronto).

- The construction costs of some 56/1 projects are affected by requirements such as fair labour rate clauses or union only labour clauses (e.g. Constance Hamilton and Salal Co-ops).

- In comparing the costs of units with the same bedroom counts, the higher cost per square meter, for 56/1 units, is countered, to some degree, by the larger dwelling unit areas, in private sector projects. However, the patterns vary between building types and cities.

. It has been speculated that the ongoing maintenance and operating costs of 56/1 projects could be less than those for private sector projects. Certainly the greater attention to detail and supervision, that was evident in the design/tender projects, is likely to improve durability and reduce maintenance and repair costs. Some of the design/tender projects also incorporated energy saving features, however, in an overall comparison there were few differences between the levels of thermal resistance in 56/1 and private sector projects. The smaller areas of 56/1 dwellings could result in less ongoing costs in comparison with private sector units with the same bedroom count, however, these savings could be more than offset by the higher envelope/floor area ratios in 56/1 projects.

2. EXECUTIVE SUMMARY (cont'd)

Study Findings (cont'd)

. The costs incurred by C.M.H.C. in administering the 56/1 program have not been considered in this study.

Recommendations

The study identified wide spreads, in both cost and quality, for 56/1 units with the same bedroom count, built in the same city. This indicates that the current approach to cost control (i.e. M.U.P.S.) would probably not be effective if future emphasis was to be placed upon providing good basic accommodation at the most reasonable occupancy costs. Given such an emphasis, the following approach would be recommended:

. The essential components of good basic accommodation should be defined for all client groups.

. Realistic estimates of the costs of constructing, maintaining and operating such accommodation should be developed for use as guidelines.

. Client groups should be involved in developing the terms of reference for the design of a project, but once that is completed, they should stay at arms length to the design and construction process, deligating all decisions to their design consultants.

. Based upon the evidence of the study, turnkey projects are likely to be the least costly and should therefore be considered as a first choice. However, design consultants should be involved in developing the call for proposals and in selecting and negotiating with the chosen builder. Future maintenance and operating costs should be considered in selecting a project.

2. EXECUTIVE SUMMARY (cont'd)

Recommendations (cont'd)

. Many factors, such as problem sites or special projects requirements, may dictate the use of the design/tender approach. In such cases realistic cost estimates should be prepared at the sketch design stage to ensure that the project can be delivered within guidelines. Interim checks should also be made as the design evolves. A cost consultant can provide such a service, at modest cost, thereby avoiding cost overruns and the need for major design changes.

. Adjusting subsidies to provide client groups with an incentive to deliver units within cost guidelines could encourage better cost control.

3. Summary & Conclusions - Montreal

For the purposes of assessing relative costs and qualitative and quantitative factors, the Montreal projects have been grouped into the following generic categories.

Generic Type	Project Name/Location	Section	
1. Timber Framed Row	Co-op Haitienne	56/1	))
	Co-op La Tannerie	56/1	)4)
	Co-op St. Sulpice	56/1	))
	Co-op Les Bordages	56/1	))
			) 8
	1956 Lionel Groulx	6	))
	614 Des Seigneurs	6	)4)
	595 Chatham	6	))
	1700 L.J. Gauthier	6	))
2. Timber Framed Apartment Buildings	Co-op Mercier	56/1	)2)
	Co-op Feu Vert	56/1	))
			) 5
	Maison Prevert	6	))
	Rue Goyer Et Bedford	6	)3)
	12004 Rue Ontario Est	6	))
3. Concrete Framed Senior Apartment Buildings	Quatre Soleils	56/1	))
	Les Retrouvailles	56/1	)3)
	Residence Ukrainienne	56/1	)) 4
			)
	La Fleuralie	6	)1)

3. Summary & Conclusions - Montreal (Continued)

The timber framed row sample projects are all two storey and basement developments. There are no stacked row projects. Three of the section 6 row projects are identical single 3 bed unit structures.

The timber framed apartment buildings vary in height from 2 to 3-1/2 storeys; some with basements, some without.

The concrete framed apartments included in the sample are all seniors residences.

In the comparisons that follow the lowest cost unit in each category has been used as a base from which to measure the relative costs of other projects in the same category.

The costs are then tabulated, the projects evaluated and comparisons drawn. A brief narrative on each project is also included.

Cost differentials are then allocated to the major causatory factors of size or area, quality and complexity and market and procurement; these being the major factors to which construction cost differentials can be attributed.

Conclusions are then drawn and summarized in point form.

3. Summary & Conclusions - Montreal

Timber Framed Row Housing Factor	56/1 Projects				Section 6 Projects			
	Co-op Haitienne	Co-op La Tannerie	Co-op Suipice	Co-op Les Bordages	1956 Lionel Groulx	614 Des Seigneurs	595 Chatham	1700 L.J. Gauthier
Cost per unit with land:								
2 Bed	-	-	-	45,965	-	-	-	-
3 Bed	60,112	60,814	57,158	52,062	59,913	59,913	59,913	87,804
4 Bed	70,218	-	-	-	-	-	-	-
Cost per unit without land:								
2 Bed	-	-	-	43,082	-	-	-	-
3 Bed	54,999	53,758	49,386	48,775	56,272	56,272	56,272	74,850
4 Bed	64,627	-	-	-	-	-	-	-
Cost/Bed with land	19,690	20,271	19,052	18,125	19,971	19,971	19,971	29,268
Cost/Bed without land	18,028	17,919	16,462	16,982	18,757	18,757	18,757	24,950
Living Area per bed m^2	43.1	41.3	54.8	45.1	49.7	49.7	49.7	48.3
Gross Area per bed m^2	50.0	46.3	62.0	49.9	63.0	63.0	63.0	61.0

3. Summary & Conclusions - Montreal (Continued)

1. The 56/1 sample is generally good whereas the section 6 sample contains three identical projects plus a fourth similar project, on which the cost data is suspect. This must be borne in mind when assessing the relevance of comparative data derived from the analyses.

2. The land costs of the 56/1 projects are, on average, approximately twice those of the section 6 projects. This reflects factors such as location and the content of the section 6 sample.

3. The soft costs of the 56/1 projects average approximately 11% of the construction costs; those of the section 6 projects approximately 1% of the construction costs. Again attention is drawn to the content of the section 6 sample and the quality of cost information available.

4. The 56/1 projects provide a range of 2, 3 and 4 bed units; the average unit size being 3 beds. All of the section 6 projects are single 3 bed units.

5. All projects sampled contain 3 bed units. On average the section 6 units are approximately 6% larger in area than the 56/1 units.

6. The gross area per person provided in the 56/1 projects shows a variance from high to low of approximately 33%. On average the section 6 projects provide approximately 7% more space per person than do the 56/1 projects.

3. Summary & Conclusions - Montreal (Continued)

7. On average the cost per 3 bed unit of the 56/1 projects is approximately 20% less than the section 6 projects when land is excluded. (If the 1700 L.J. Gauthier project is omitted the costs are close).

8. On a cost per m^2 basis excluding land the section 56/1 projects are approximately 3% lower than the section 6 projects. Omitting L.J. Gauthier from the calculation has the effect of making the 56/1 costs approximately 6% higher than the section 6 costs.

9. When the suspect project, L.J. Gauthier, is taken out of the comparison the overall cost per individual housed for both the section 56/1 and section 6 projects, is close.

10. In the table below the relative costs per 3 bed unit excluding land are compared.

Project	Section	Relationship
Co-op Haitienne	56/1	1.36
Co-op La Tannerie	56/1	1.46
Co-op St. Sulpice	56/1	1.0
Co-op Les Bordages	56/1	1.28
1956 Lionel Groulx	6	1.12 *
614 Des Seigneurs	6	1.12 *
595 Chatham	6	1.12 *
1700 L.J. Gauthier	6	1.54 +

* Identical single 3 bed projects
+ Costs suspect

3. Summary & Conclusions - Montreal (Continued)

10. (Continued)
Given the content and quality of the section 6 sample the most significant factors arising from the above are the wide range in 56/1 costs and the fact that when L.J. Gauthier is omitted only one of the 56/1 projects is lower in cost than the section 6 projects.

11. On an individual project basis, design, location and procurement factors that contribute towards these differentials are illustrated in the outlines that follow:

Timber Framed Row:

- Co-operative Haitienne d'Habitation is a 10 block two storey and basement timber framed row housing project located at 1260 Marc Aurele Fortin, Montreal. The land cost per unit is average and the cost per unit the second highest of the 56/1 projects. The unit construction cost is the second highest of the sample and the area per unit the second highest of the 56/1 projects. The design is basic, though well detailed; the mechanical and electrical installations costs being the highest of the projects sampled. The project was designed by an Architect retained by the co-op and constructed using a stipulated sum form of contract supervised by the architect.

- Co-operative d'Habitation La Tannerie is a 7 block two storey and basement timber framed row housing project located at the corner of Rose de Lima and Workman in Montreal. The land cost per unit is the second highest of the 56/1 sample and the cost per unit the second highest of the 56/1 projects. The unit construction cost is the highest of the sample and the area per unit the second highest of the sample.

3. Summary & Conclusions - Montreal (Continued)

11. (Continued)
Timber Framed Row:

The high cost per m^2 can be attributed to the relatively low area per unit and the level of detailing and finishing. The project was designed by an architect retained by the co-op and constructed using a stipulated sum form of contract supervised by the architect.

- Co-operative d'Habitations Du Domaine St. Sulpice is a two storey and basement timber framed row housing project located at Emile Journault and Christophe Colombe in Montreal. The land cost per unit is the highest of the 56/1 sample and the cost per unit the second lowest of the overall sample. The unit construction cost is the lowest of the project sample and the gross building area the highest of the sample. The design is basic and built down to a price. The project was designed by an architect retained by the co-op and constructed using a stipulated sum form of contract supervised by the architect.

- Co-operative D'Habitations "Les Bordages" is a two storey and basement timber framed row housing project located in the rectangle formed by Mullins, Grand Trunk, d'Argenson and Charlevoix in the Point St. Charles district. The land cost per unit is by far the lowest of the sample and the cost per unit also the lowest of the sample. The unit construction cost is the second lowest of the 56/1 sample and the area per unit the lowest of the project sample. The design is basic though well detailed. The project was designed by an architect retained by the co-op and constructed using a stipulated sum form of contract supervised by the architect.

3. Summary & Conclusions - Montreal (Continued)

11. (Continued)
Timber Framed Row:

- 1956 Lionel Groulx, 595 Chatham, and 614 Des Seigneurs are identical single unit 3 bed 2 storey and basement row-type residential units. The cost and area data in C.M.H.C. files is the same for each project. The land costs per unit are substantially lower than all but one of the 56/1 projects and the cost per unit higher than all the 56/1 projects. The unit construction cost is the lowest of the sample and the area per unit the second highest of the sample. The design is basic and is reflected in the unit costs of the building elements. The projects were designed and constructed on a turnkey basis by the developer.

- 1700 Louis Joseph Gauthier is similar in size and design to the three projects dealt with above. The land, soft costs, cost per unit and unit construction costs are, however, much higher. As there is no apparent reason for this difference in cost the data on this project should be omitted from the comparison base.

12. In the table that follows the average costs of the 56/1 projects are compared with the section six projects and differences in cost on a unit of accommodation basis, excluding land, allocated to major causatory factors. (1700 Louis Joseph Gauthier has been omitted from the sample for the reasons stated earlier).

3. Summary & Conclusions - Montreal (Continued)

12. (Continued)

	Factor	Per 3 Bed Unit Section 6 Over Section 56/1 $	Total %
1.	Size, Area	260.00	100.0
2.	Quality Complexity	-	-
3.	Market and Procurement Policy	-	-
	Total	260.00	100.0

13. In Summary:
(Omitting 1700 L. J. Gauthier)

1. The 56/1 sample is good whereas the section 6 sample is poor.

2. The 56/1 land costs are, on average, much higher than the section 6 land costs.

3. The 56/1 soft costs are, on average, much higher than the reported section 6 soft costs.

4. The 56/1 costs per unit are, on average, 12% lower than those of the section 6 projects.

3. Summary & Conclusions - Montreal (Continued)

13. (Continued)

5. The unit construction costs of the 56/1 projects are, on average, 4% higher than those of the section 6 projects.

6. The units in the section 6 projects are, on average, 10% larger in area than those in the section 56/1 projects.

7. The section 56/1 projects provide a range of 2, 3 & 4 bed units. All of the section 6 projects are single 3 bed units.

8. The 56/1 projects exhibit a wide range both in cost and area per unit type.

3. Summary & Conclusions - Montreal

Timber Framed Apartments Factor	56/1 Projects		Section 6 Projects		
	Co-op Mercier	Co-op Feu-Vert	Maison Prevert	Rue Goyer Et Bedford	12004 Rue Ontario Est
Cost per unit with land:					
1 Bed Handicapped	38,983	-	-	-	-
2 Bed Handicapped	-	-	-	-	34,269
Bachelor	-	-	-	16,917	-
1 Bed	33,802	-	25,659	24,999	-
2 Bed	44,291	44,924	31,557	34,984	30,850
3 Bed	54,961	56,974	-	43,541	34,592
4 Bed	-	69,061	-		
Cost per unit without land:					
1 Bed Handicapped	36,637	-	-	-	-
2 Bed Handicapped	-	-	-	-	31,505
Bachelor	-	-	-	14,954	-
1 Bed	31,456	-	21,690	22,082	-
2 Bed	41,218	38,658	26,580	30,889	28,086
3 Bed	51,161	49,029	-	38,437	31,487
4 Bed	-	59,372	-	-	-
Cost/Bed with land	22,349	19,548	23,188	17,187	14,521
Cost/Bed without land	20,813	16,819	19,590	15,176	13,228
Living Area per bed m^2	46.4	45.2	57.5	39.5	40.3
Gross Area per bed m^2	51.3	50.3	66.0	44.2	45.1

3. Summary & Conclusions - Montreal (Continued)

Timber Framed Apartments

1. The quality of 56/1 and section 6 data is generally good, providing a reasonable basis for comparison both on the grounds of market catered to and type and quality of construction.

2. The land cost of the 56/1 projects is, on average, approximately 16% lower than that of the section 6 projects. The land costs again reflect location, ground conditions, topography etc.

3. On a percentage of construction cost basis the soft costs compare on average as follows:

   Section 56/1 - 11%
   Section 6 - 14%

4. The 56/1 projects are family oriented, providing a range of 2, 3 & 4 bed units and having an average unit capacity of 2.4 beds. The section 6 projects provide a mix of singles and family units; the average unit capacity being 1.8 beds.

5. All projects sampled contain 2 bed units. On average the section 56/1 units are 17% larger in area than the section 6 units. (The converse is normally the case.)

6. On average the section 56/1 projects provide 8% more space per person than do the section 6 projects (see note above).

7. On average the cost per 56/1 2 bed unit excluding land is approximately 30% higher than the cost per section 6 two bed unit.

3. Summary & Conclusions - Montreal (Continued)

Timber Framed Apartments

8. On a cost per m^2 basis excluding land the section 56/1 projects are approximately 11% higher in cost than the section 6 projects.

9. The overall cost per person housed in the 56/1 projects is approximately 18% higher than the cost per person in the section 6 projects (direct comparison, unadjusted for unit mix or land cost).

10. The table below illustrates the relative costs, excluding land, of a two bed unit in each of the projects sampled.

Project	Section	Relationship
Co-op Mercier	56/1	1.07
Co-op Feu-Vert	56/1	1.0
Maison Prevert	6	0.69
Goyer et Bedford	6	0.80
12004 Rue Ontario Est	6	0.73

The figures illustrates the points made in the preceding paragraphs.

11. On an individual project basis design, location and procurement factors that contribute towards these differentials, are illustrated in the outlines that follow:

3. Summary & Conclusions - Montreal (Continued)

Timber Framed Apartments

- Co-op Mercier is a 3-1/2 storey wood frame apartment building located at the corner of Laurier and Clark in Montreal. The land cost per unit is the second lowest of the sample and the cost per unit the highest of the sample. The latter can be attributed to the second highest area per unit and the highest unit construction cost of the sample. The unit construction cost reflects design and detailing of architectural components and substantially higher mechanical and electrical system costs. The project was designed by an Architect retained by the Co-op. and constructed using a stipulated sum form of contract supervised by the architect.

- Co-op Feu Vert is a 2-1/2 storey duplex type of wood frame apartment building located at the corner of Marseille and Talon in Montreal. The land cost per unit is much higher than the other projects in the sample, the area per unit the highest of the sample and the the unit construction cost approximately 10% lower than Co-op Mercier. The design is simple the only notably high cost being the site development. The project was designed by an architect retained by the Co-op and constructed under what appears to have been a negotiated contract.

- Maison Prevert is a 3 storey wood frame apartment building located at 355 & 365 10th Avenue Ville de Lachine. The land cost per unit is close to the sample average and the cost per unit the lowest of the project sample. The latter can be attributed to the second lowest area per unit of the sample, the simplicity of the design and the consequent low construction cost. The project was designed by an architect retained by the developer and constructed using a turnkey form of contract.

3. Summary & Conclusions - Montreal (Continued)

Timber Framed Apartments

- Rue Goyer et Bedford is a 4 block 3-1/2 storey wood frame apartment building development located at Rue Goyer and Rue Bedford in the Cote des Neiges district. The land cost per unit is close to the sample average and the cost per unit and construction cost lower than the 56/1 projects but the highest of the section 6 projects. The design is basic, the major difference between this and the other section 6 projects being in the quality, scope and cost of the mechanical and electrical systems. The project was designed and constructed on a turnkey basis by the developer.

- 12004 Rue Ontario Est is a 3-1/2 storey wood frame apartment building located at the corner of St. Jean Baptiste and Ontario P.A.T. On all counts, land, cost per unit and cost per m^2 the project has the lowest costs of the project sample . The low costs reflect the basic nature of the design and procurement system. The project was designed and constructed on a turnkey basis by the developer.

12. In the table that follows the average costs of the 56/1 projects are compared with the section 6 projects and differences in cost on a unit of accommodation basis, excluding land, allocated to major causatory factors.

Factor	Per 2 Bed Unit Section 56/1 over Section 6	Total %
1. Size, Area	(-2,700.00)	(-23.0)
2. Quality/ Complexity	9,420.00	82.0
3. Market & Procurement Policy	4,700.00	41.0
Total	11,420.00	100.0

3. Summary & Conclusions - Montreal (Continued)

Timber Framed Apartments

13. In Summary:

1. The sample is generally good.

2. The 56/1 land costs are, on average, 18% higher than the section 6 land costs.

3. On a percentage of construction cost basis the soft costs of the 56/1 and section 6 projects are within 3 points.

4. The 56/1 costs per unit are consistently higher, by a factor of approximately 30%, than the section 6 costs per unit.

5. The unit construction costs of the 56/1 projects are, on average, higher by 18% than those of the section 6 projects.

6. The units in the 56/1 projects are, on average, 17.5% larger in area than those in the section 6 projects. (The converse is normally the case).

7. The range of accommodation provided in the 56/1 and section 6 projects is similar (the 56/1 projects typically provide a wider range of unit types and special amenities).

8. Both the 56/1 projects were designed by architects retained by the Co-ops. The section six projects were all constructed on a turnkey basis by the developer.

9. The overall difference in cost can be attributed to area, standard section 6 designs versus customized and improved 56/1 designs and different procurement techniques.

3. Summary & Conclusions - Montreal

Concrete Framed Seniors Apartments	56/1 Projects			Section 6 Projects
	Quatre Soleils	Les Re-Trouvailles	Residence Ukrainienne	La Fleuraie
Cost per unit with land:				
1 Bed Handicapped	54,536	64,070	-	-
2 Bed Handicapped	-	-	68,839	-
Bachelor	-	-	31,890	-
1 Bed	44,852	41,249	44,233	38,538
2 Bed	54,715	56,015	62,739	44,153
Cost per unit without land:				
1 Bed Handicapped	-	61,124	-	-
2 Bed Handicapped	-	-	66,047	-
Bachelor	54,101	-	30,474	-
1 Bed	44,496	39,392	42,263	36,748
2 Bed	54,280	53,454	59,947	42,100
Cost/Bed with land	35,535	28,671	41,698	31,222
Cost/Bed without land	35,252	27,363	39,852	29,771
Living Area per bed m^2	40.4	45.1	68.0	55.7
Gross Area per bed m^2	44.2	50.6	77.9	59.4

3. Summary & Conclusions - Montreal (Continued)

Concrete Framed Seniors Apartment - Montreal

1. The detail on both the 56/1 and section 6 projects is generally good. The sample contains 3 section 56/1 projects and a single section 6 project; a mix which must be borne in mind when assessing the relevance of comparative data.

2. The land cost of the 56/1 projects is on average 28% lower than that of the section 6 projects. There is a wide spread in the land costs of the 56/1 projects. This spread is typical and reflects variables such as location, ground conditions, topography etc.

3. On a percentage of construction cost basis the soft costs of the 56/1 and section 6 projects compare as follows:
   Section 56/1 - 17%
   Section 6 - 8%

4. All projects sampled contain a mix of one and two bed units. The average unit capacity in the 56/1 and section 6 projects is respectively 1.5 beds and 1.3 beds.

5. All projects sampled contain one bed units. On average the area per unit of the section 56/1 projects is a mere 4% less than the section 6 project. There is a wide spread in the area per unit of the 56/1 projects.

6. On average the section 6 project provides 10% more space per person than do the section 56/1 projects. (Direct comparison, unadjusted for unit mix).

3. Summary & Conclusions - Montreal (Continued)

Concrete Framed Seniors Apartment - Montreal

7. The average cost per 56/1 one bed unit, excluding land, is 14% higher than that of the section 6 project.

8. On a cost per m^2 basis excluding land the section 56/1 projects are, on average, 27% higher in cost than the section 6 project.

9. The overall cost per person housed in the 56/1 projects is approximately 5% higher than the cost per person in the section 6 projects. (Direct comparison, unadjusted for unit mix or land cost.)

10. The table below illustrates the relative costs, excluding land, of a two bed unit in each of the projects sampled.

Project	Section	Relationship
Quatre Soleils	56/1	1.13
Les Retrouvailles	56/1	1.0
Residence Ukrainienne	56/1	1.07
La Fleuralie	6	0.93

The figures again illustrate the points made in the previous paragraphs.

11. On an individual project basis, location design and procurement factors that contribute towards these differentials, are illustrated in the outlines that follow:

3. Summary & Conclusions - Montreal (Continued)

Concrete Framed Seniors Apartment - Montreal

- Quatre Soleils is a three storey concrete framed structure located in Ville des Laurentides, a suburb of Montreal. The land cost is the lowest by far of the project sample and the construction cost substantially higher than all other projects in the sample. The overall cost is also the highest of the project sample. The high construction cost reflects site conditions; the foundations are piled and site development costs are also high; the scope of fittings included in the costs; all appliances some furnishings and laundry equipment are included; and the mechanical and electrical systems which are custom designed, more extensive in scope and therefore more expensive than the other projects. The project was designed by an architect retained by the agency and constructed using a stipulated sum form of contract supervised by the architect.

- Residence Les Retrouvailles is a six storey and basement concrete framed structure located in a residential area to the north of Mount Royal. The land costs and construction costs are on par with the other projects in the sample (Quatre Soleils excluded); the design being straightforward. The project was designed by an architect retained by the agency and constructed using a stipulated sum form of contract supervised by the architect.

- Residence Ukrainienne is a four storey and basement concrete framed structure located in an area to the south of Les Retrouvailles. The relatively high cost per unit can be attributed to the highest area per unit of the sample coupled with the lowest unit construction cost of the 56/1 projects. The substructure cost is high due to the need for extensive shoring. The land cost per unit is on a par with the other projects sampled (Quatre Soleils excluded). The project was designed by an architect retained by the agency and appears to have been constructed under a negotiated contract.

3. Summary & Conclusions - Montreal (Continued)

Concrete Framed Seniors Apartment - Montreal

- La Fleuralie is a twelve storey and basement concrete framed structure. The project has the second lowest land cost and the lowest cost per unit of the project sample. The cost per m^2 is also substantially lower than the 56/1 projects; a reflection of design, detailing and procurement. The project was designed and constructed on a turnkey basis by the developer.

12. In the table that follows the average costs of the 56/1 projects are compared with the section 6 project and differences in cost on a unit of accommodation basis, excluding land, allocated to major causatory factors.

Factor	Per 1 Bed Unit Section 56/1 over Section 6	Total %
1. Size, Area	(-845.00)	(-16.0)
2. Quality/ Complexity	4,122.00	78.0
3. Market & Procurement Policy	2,025.00	38.0
Total	5,302.00	100.0

13. In summary:

1. The sample is generally good although the section 6 group is limited to a single project.

3. Summary & Conclusions - Montreal (Continued)

Concrete Framed Seniors Apartment - Montreal

13. (Continued)

2. The section 56/1 land costs are, on average 28% higher than the section six land costs.

3. The section 56/1 soft costs are substantially higher than the section 6 soft costs.

4. The 56/1 costs per unit are consistently higher, by a factor of 14%, than the section 6 costs per unit.

5. The unit construction costs of the 56/1 projects are, on average, higher by 27% than those of the section 6 project.

6. The units in the section 6 project are, on average 10% larger in area than those in the 56/1 projects.

7. The 56/1 projects provide a wider range of unit types than does the section 6 project.

8. The three 56/1 projects were designed by architects retained by the agencies. The section six project was constructed on a turnkey basis by the developer.

9. There is a wide range in the areas per unit of the 56/1 projects. The range in cost of similar units is, however, much lower.

10. The overall difference in cost can be attributed to a standard section 6 apartment design adjusted to accommodate seniors vs. customized 56/1 designs and different procurement techniques.

3. SUMMARY AND CONCLUSIONS

TORONTO

For the purposes of assessing relative costs and qualitative and Quantitative factors the Toronto projects have been grouped into the generic categories listed below:

Generic Type	Project	Section		
1. Timber framed row	. Kenfinch Co-op	56/1	4	6
	. Riverdale Co-op	56/1		
	. William Lyon MacKenzie	56/1		
	. Constance Hamilton Co-op	56/1		
	. 33 Dundalk Drive	6	2	
	. 45 & 55 Provence Trail	6		
2. Timber framed apartment building	. Wellington & Mill	6	1	
3. Concrete framed apartment buildings	. Innisfree Co-op	56/1	3	7
	. Weston & Oxford	56/1		
	. Comfort Living	56/1		
	. 132 Front Street	6	4	
	. King & Bathurst	6		
	. Bay & Edwards	6		
	. 441 Jarvis Street	6		

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Generic Type	Project	Section	
4. Concrete framed seniors apartment buildings	. Winona Co-op	56/1	3
	. Toronto Lithuanian	56/1	
	. B'Nai Brith	56/1	

The timber framed row sample comprises two straight forward 2 storey and basement row housing projects, two stacked row projects, one combined row and back to back project, and one combined stacked row and walk-up apartment project.

The single timber framed apartment project comprises two buildings; a family building and a singles building; the latter being intended for the seniors market.

The concrete framed apartment building sample comprises one 56/1 combination high and low rise project, two 56/1 high rise projects and four section six up-market projects.

The concrete framed seniors apartment building sample comprises three section 56/1 high rise projects. (The data on one of these projects, B'Nai Brith, is incomplete).

In the comparisons that follow the lowest cost unit in each category has been used as a base from which to measure the relative costs of other projects in the same category.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

The costs are tabulated, the projects evaluated and comparisons drawn. A brief narrative on each project is also included.

Cost differentials are allocated to the major causatory factors of size or area, quality and complexity and market and procurement; these being the major factors to which construction cost differentials can be attributed.

Conclusions are then drawn and summarised in point form.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Row

Factor	Project: Kenfinch Co-op 56/1	Riverdale Co-op 56/1	W. Lyon MacKenzie Co-op 56/1	Constance Hamilton Co-op 56/1	33 Dundalk Drive Murb Condo 6	45 & 55 Province Trail CRSP Rental 6
Cost/unit with land - 1 bed Hcap	-	-	-	-	-	53 314
- 2 bed Hcap	-	42 523	-	-	-	-
- 3 bed Hcap	-	-	103 367	-	-	-
- 4 bed Hcap	64 835	-	-	-	-	-
- 1 bed	-	36 388	-	32 175	-	50 994
- 2 bed	-	70 703	57 344	81 170	-	49 162
- 3 bed	69 190	85 049	72 766	71 009	66 752	57 035
- 4 bed	75 158	83 876	95 349	109 125 (six bed hostel)	77 526	-
Cost/unit without land - 1 bed Hcap	-	-	-	-	-	43 289
- 2 bed Hcap	-	36 539	-	-	-	-
- 3 bed Hcap	-	-	78 794	-	-	-
- 4 bed Hcap	51 733	-	-	-	-	-
- 1 bed	-	30 852	-	26 555	-	40 969
- 2 bed	-	58 345	43 645	66 911	-	39 538
- 3 bed	54 043	69 747	55 112	58 541	49 745	45 688
- 4 bed	58 648	71 239	71 905	89 937	53 936	-
Cost/bed with land	19 622	31 617	24 886	33 561	22 051	28 442
Cost/bed without land	15 330	26 212	18 842	27 611	16 431	22 865
Living area/bed m²	38.7	56.0	43.3	65.2	45.0	63.3
Gross area/bed m²	43.5	60.2	49.5	74.5	51.3	71.4

3. SUMMARY AND CONSLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Row

1. The quality of the 56/1 and section 6 data is generally good, providing a reasonable basis for comparison both on the grounds of market catered to and type and quality of construction.

2. The land costs of the 56/1 projects are, on average, approximately 6% lower than those of the section 6 projects. The range high to low in the section 56/1 projects is 40% and that in the section 6 projects is 50%.

3. On a percentage of construction cost basis the soft costs compare on average as follows:

section 56/1	18%
section 6	15%

4. The 56/1 projects provide a wide range of accommodation including handicapped units and in one instance a six bed hostel unit. The projects are generally family oriented, the average unit capacity being 3 beds. The section 6 projects provide a mix of singles and family units, the average unit capacity being 2.2 beds. One of the section 6 projects provides handicapped units.

5. All projects sampled contain 3 bed units. On average the 56/1 units are 8% larger in area than the section 6 units (The converse is normally the case; see mix of project sample).

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Row (cont'd)

6. On average the section 6 projects provide 25% more space per person than do the section 56/1 projects (Unadjusted for unit mix).

7. On average the cost per 56/1 3 bed unit, excluding land, is approximately 25% higher than the cost per 3 bed section 6 unit. The cost range within the 56/1 sample is approximately 30%.

8. On a cost per m^2 basis, excluding land, the section 56/1 projects are on average, approximately 30% higher in cost than the section 6 projects. The cost range within the 56/1 sample is approximately 29%.

9. The overall cost per person housed in the section 6 projects is approximately 6% higher than the cost per person in the section 56/1 projects (Direct comparison, unadjusted for unit mix; weighted by higher proportion of one and two bed units in section 6 projects).

10. The table below illustrates the relative costs, excluding land, of a 3 bed unit in each of the projects sampled.

Project	Section	Relationship
Kenfinch Co-op	56/1	1.0
Riverdale Co-op	56/1	1.29
W. Lyon MacKenzie Co-op	56/1	1.02
Constance Hamilton Co-op	56/1	1.08
33 Dundalk Drive	6	0.92
45 & 55 Provence Trail	6	0.85

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Row (cont'd)

10. (cont'd)

The figures illustrate the points made in the previous paragraphs.

11. On an individual project basis design, location and procurement factors that contribute towards these differentials, are illustrated in the outlines that follow:

. Kenfinch Co-op is a two storey and basement timber framed, 14 block row housing project located at Finch Avenue and Kennedy Road in Scarborough. The land cost per unit is the second lowest of the 56/1 sample and is lower than one of the section 6 projects. Both the cost per unit and the unit construction cost per m^2 are the lowest of the 56/1 sample and are higher than both the section 6 projects. The gross area per unit is the highest of the sample. The design is basic and repetitive in nature. The project was designed and constructed under a turnkey form of agreement between the Co-op and a developer.

. Riverdale Co-op is a small three storey and basement timber framed row/stacked row project located at 1359 - 69 Queen Street East Toronto. The site is tight and has some ground water problems. The land cost per unit is close to average for the 56/1 projects and approximately 8% higher than the section 6 average land cost per unit. Both the cost per unit and the unit construction cost per m^2 are substantially higher than the other projects sampled. The high costs can be attributed to scale, massing and form, ground water problems,

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Row (cont'd)

11. (cont'd)

. Riverdale Co-op (cont'd)
and higher than average interior finishing and mechanical and electrical costs. The gross area per unit is the second highest of the sample. The project was designed by an architect retained by the Co-op and constructed under a management form of contract suppervised by the architect.

. The William Lyon MacKenzie Co-op is a two and three storey combination of conventional and back to back timber framed row housing located at Bathurst Street north of Steele's Avenue, Toronto. The land cost per unit is the highest of the project sample. The cost per unit is close to lowest 56/1 project, Kenfinch, and the unit construction cost per m^2 the second highest of the 56/1 projects. The area per unit is the lowest of the 56/1 projects and the second lowest of the overall sample. The relatively high construction unit cost can be attributed to the low area per unit, a sloping site, massing and form and sewer construction changes that are out of proportion to the size and cost of the project. The project was designed and constructed under a turnkey form of agreement between the Co-op and the developer.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Row (cont'd)

11. (cont'd)

. The Constance Hamilton Co-op is a small three storey and basement stacked row timber framed project located on Lambert Lodge Avenue in Toronto. The land cost per unit is substantially lower than the other 56/1 projects and within 10% of the lowest land cost in the sample. The cost per unit, excluding land, is the second highest of the sample and the unit construction cost the second lowest of the 56/1 sample. When soft costs are included the unit cost per m^2 is the second highest of the 56/1 sample. The gross area per unit is the second lowest of the 56/1 sample. The design is simple, has been customised in some respects and contains a six bed hostel unit. The project was tendered on a stipulated sum basis, the contract being awarded to the sole bidder following withdrawal of other interested contractors due to the insertion, through an addendum to the tender documents, of a union only labour clause. Given the basic nature of the design the relatively high construction unit cost can be attributed to the use of union labour. The project was designed and the construction supervised by an architect retained by the Co-op.

. 33 Dundalk Drive is a two storey and basement timber framed row housing project located in Scarborough. The land cost per unit is the second highest of the sample and the higher of the two section 6 projects. The cost per unit, excluding land, is the second lowest of the sample and the unit construction cost also the second lowest of the sample. The gross area per unit is the higher of the two section 6 projects and lower than all but one of the section 56/1 projects. The design is straight forward and probably

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Row (cont'd)

11. (cont'd)

. 33 Dundalk Drive (cont'd)
nearly identical to other MURB condominium units constructed by the developer. The construction unit costs are in line with those achieved in the industry and reflect the simplicity of the design, familiarity of trade contractors with the design and its components and the developers knowledge of market and purchasing techniques. The project was designed and constructed by the developer.

. 45 & 55 Provence Trail is a combination of two and three and a half storey and basement timber framed stacked row and walk-up apartment project located in Etobicoke. The land cost per unit is the lowest of the sample and reflects the location. Both the cost per unit and unit construction cost are the lowest of the sample. The gross area per unit is also the lowest of the sample. The design is basic and built down to a price. The comments with regard to construction unit costs made in the previous project are again relevant. The project was designed and constructed by the developer under the CRSP program.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Row (cont'd)

12. In the table that follows the average costs of the 56/1 projects are compared with the section 6 projects and differences in cost, on a unit of accommodation basis excluding land, allocated to major causatory factors.

Factor		Per 3 bed unit Section 56/1 over Section 6	Total %
1.	Size, area	3 245.00	28.0
2.	Quality, complexity	5 634.00	48.0
3.	Market and procurement policy	2 775.00	24.0
	Total	11 654.00	100.0

13. In summary:

1. The sample is generally good.

2. The 56/1 land costs are on average 6% less than the section 6 land costs.

3. On a percentage of construction cost basis the soft costs of the 56/1 and section 6 projects are within 3 points.

4. The 56/1 costs per unit are consistently higher by a factor of approximately 25% than those of the section 6 projects.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Row (cont'd)

13. In summary: (cont'd)

5. The unit construction costs of the 56/1 projects are, on average, approximately 30% higher than those of the section 6 projects.

6. The units in the 56/1 projects are, on average, approximately 8% larger in area than those in the section 6 projects (The converse is normally the case).

7. The 56/1 projects provide a wider range of accommodation types than do the section 6 projects.

8. Within the 56/1 sample there is a wide range in cost per unit, area per unit, and unit cost per m^2.

9. Of the 56/1 projects two were developed using turnkey forms of contract and two using the traditional architect and general contractor method. The costs per unit of the turnkey projects are lower than those of the architect/general contractor projects.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Apartment Building

The Toronto sample contains one timber framed apartment building.

Cost and area data from this project are summarised below:

		Wellington & Mill, Aurora $
Cost/unit with land	- 1 bed Snrs	$ 49 382
	- 1 bed	45 479
	- 2 bed	54 117
	- 3 bed	103 250
Cost/unit without land	- 1 bed Snrs	41 163
	- 1 bed	37 973
	- 2 bed	45 023
	- 3 bed	85 078
Cost/bed with land		35 259
Cost/bed without land		29 344
Living area/bed m²		49.3
Gross area/bed m²		58.0

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Timber Framed Apartment Building (cont'd)

The notes that follow comment generally on the cost of the Wellington and Mill project relative to the other Toronto timber framed projects.

1. The stated land cost per unit of accommodation despite the location, is substantially higher than that of the other timber framed projects.

2. The soft costs are, on a percentage of construction cost basis, substantially higher than the other wood frame projects.

3. The project comprises two blocks, a family tower providing a range of singles and family units and a second tower intended for seniors and providing predominantly single bed units. The overall average capacity per unit of accommodation is 1.5.

4. The area per unit of accommodation is substantially higher than the other timber framed projects.

5. The costs per 3 bed unit and unit construction costs are much higher than the average costs of the other timber framed projects.

6. The Wellington and Mill project is a two block timber framed apartment building located in Aurora. The project is straight forward and was designed and constructed by the developer; a partnership made-up, for the most part, of trade contractors. Given the simplicity of the project the reported costs appear to be high.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments

	Innisfree Co-op 56/1	Weston Oxford 56/1	Comfort Living Co-op 56/1	132 Front Street 56/1	King & Bathurst CRSP 6	Bay & Edwards CRSP 6	441 Jarvis Street 6
	$	$	$	$	$	$	$
Cost/unit - Bach Snr	-	-	-	-	-	-	-
with land - 1 bed Snr	-	52 583	-	-	-	-	-
- 2 bed Snr	-	74 519	-	-	-	-	-
- 1 bed Hcap	53 555	65 478	55 450	-	-	-	-
- 2 bed Hcap	64 986	83 663	59 280	-	-	-	-
- 3 bed Hcap	-	-	80 987	-	-	-	-
- 4 bed Hcap	-	-	-	-	-	-	-
- 1 bed	49 328	-	51 075	208 858	81 843	84 703	88 782
- 2 bed	60 897	74 518	57 572	239 195	100 462	97 741	93 465
- 3 bed	85 002	88 961	86 105	-	-	-	-
- 4 bed	96 580	-	-	-	-	-	-
Cost/unit - Bach Snr	-	-	-	-	-	-	-
without - 1 bed Snr	-	45 489	-	-	-	-	-
land - 2 bed Snr	-	63 654	-	-	-	-	-
- 1 bed Hcap	47 071	57 717	48 422	-	-	-	-
- 2 bed Hcap	56 947	72 021	51 698	-	-	-	-
- 3 bed Hcap	-	-	70 268	-	-	-	-
- 4 bed Hcap	-	-	-	-	-	-	-
- 1 bed	42 518	-	44 370	190 064	70 990	65 226	69 687
- 2 bed	51 546	63 653	49 883	217 834	86 767	75 018	73 277
- 3 bed	66 425	75 611	74 092	-	-	-	-
- 4 bed	75 280	-	-	-	-	-	-
Cost/bed with land	31 910	47 555	53 638	120 300	55 725	73 520	48 746
Cost/bed without land	26 476	40 868	46 320	109 562	48 181	56 577	38 221
Living area/bed m²	49.4	51.4	40.7	119.5	54.4	74.2	48.1
Gross area/bed m²	55.7	59.4	48.3	134.1	61.8	83.2	55.0

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments (cont'd)

1. The sample contains three section 56/1 projects and four section 6 projects. Of the former, two are family projects and one, the Stanchester Building, a combined seniors and family building. Of the latter two are luxury MURB condominiums and two are semi-luxury CRSP rental projects. Given the sample mix comparison between the 56/1 projects and the section 6 projects cannot be made on the basis of equivalency.

2. The land costs per unit of the section 6 projects are on average approximately twice those of the section 56/1 projects. This can be attributed primarily to location, zoning and the up-market nature of the section 6 projects.

3. On a percentage of construction cost basis the soft costs compare, on average, as follows:

Section 56/1	22.7 %
Section 6	23.5 %

4. The 56/1 projects provide a wide range of singles, family, seniors and handicapped units, the average unit capacity being 2.0. The section 6 provide 1 and 2 bed regular units; the average unit capacity being 1.5. There are no handicapped units in the section 6 projects. The section 6 projects are all luxury or semi-luxury developments.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments (cont'd)

5. All projects sampled contain 2 bed units. On average the section 6 units are 50% larger in area than the section 56/1 units. The range in area within the section 56/1 sample is 13%.

6. On average the section 6 projects provide 35% more space per person than do the section 56/1 projects. (Direct comparison unadjusted for unit mix).

7. On average the cost per section 6 two bed unit excluding land, is more than twice that of the section 56/1 two bed unit. The price range within the 56/1 sample is approximately 15%.

8. On a cost per m^2 basis, excluding land, the section 6 projects are approximately 38% higher in cost than the section 56/1 projects. The price range within the section 56/1 sample is approximately 16%.

9. The overall cost per person housed in the section 6 projects is approximately 84% higher than the cost per person in the section 56/1 projects. (Direct comparison unadjusted for unit mix or land cost).

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments (cont'd)

10. The table below illustrates the relative costs, excluding land, of a two bed unit in each of the projects sampled.

Project	Section	Relationship
Innisfree Co-op	56/1	1.03
Weston and Oxford	56/1	1.28
Comfort Living Co-op	56/1	1.00
132 Front Street	6	4.37
King and Bathurst	6	1.74
Bay and Edwards	6	1.50
441 Jarvis Street	6	1.47

The figures illustrate the difference in costs between the stated costs of four section 6 luxury and semi-luxury projects and those of three mid market 56/1 projects.

11. On an individual project basis design, location and procurement factors that contribute towards these differentials are illustrated in the outlines that follow:

. The Innisfree Housing Co-op West comprises three blocks of three storey timber framed stacked row housing and a single eleven storey high rise concrete framed tower. The project is located on Galloway Road between Lawrence and Kingston in Scarborough. The land costs per unit are average for the 56/1 sample and half those of the section 6 sample. The cost per two bed unit, excluding land, is the second lowest of the 56/1 sample and the unit construction cost the lowest of the

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments (cont'd)

11. (cont'd)

. Innisfree Housing Co-op West (cont'd)
56/1 sample. The gross area per unit is the second highest of the 56/1 sample. All costs and areas are substantially lower than the section 6 sample. The relatively low unit construction cost can be attributed to the mix of wood frame and concrete construction, the straight forward design and the turnkey procurement method. The building was designed and constructed under a turnkey form of agreement between the Co-op and the developer.

. The Stanchester Charitable Foundation development is a ten storey and basement concrete framed apartment building located at Weston Road and Oxford Street in Weston. The land costs per unit are the highest of the 56/1 sample and slightly more than half those of the section 6 projects. The cost per two bed unit, excluding land, is the highest of the 56/1 sample as is the unit construction cost. The gross area per unit is the highest of the 56/1 sample. (All costs and areas are substantially lower than the section 6 averages). The relatively high construction cost can be attributed to quality and detailing; most elements of the building showing higher unit costs than those of the other two 56/1 projects. The project appears to have been designed and constructed under a turnkey form of agreement between the Foundation and the developer.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments (cont'd)

11. (cont'd)

. The Comfort Living Co-op is a concrete framed high rise development. There are two towers, one having 12 storeys and a basement and the other 9 storeys and a basement. The development is located on an attractive ravine site located at Islington and Finch in Etobicoke. The land cost perunit is the lowest of the 56/1 sample and approximately 40% of the section 6 average cost. The cost per unit, excluding land, is the lowest of the 56/1 sample and the unit construction cost the second lowest of the 56/1 sample. The gross are per unit is the lowest of the 56/1 sample. (All costs and areas are substantially lower than the section 6 averages). The project was designed by an architect retained by the Co-op and constructed under a stipulated sum form of contract supervised by the architect.

. 132 Front Street, Toronto is a luxury 64 unit concrete framed condominium apartment building, with retail and commercial space. The land cost per unit is the second highest of the section 6 sample and more than twice the average cost of the 56/1 sample. The cost per two bed unit, excluding land, is more than twice that of the other section 6 projects and close to four times that of the average 56/1 cost. The unit construction cost is the second highest of the section 6 sample and the gross area per unit more than twice that of any other project in the sample. All costs and areas are substantially higher than the section 56/1 averages. The high unit construction cost relative to the 56/1 projects can be attributed to the high quality nature of the development which includes luxury features such as central air conditioning, fireplaces and custom kitchens. The project was designed and constructed on a turnkey basis by the developer.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments (cont'd)

11. (cont'd)

. The King and Bathurst Development is a 179 unit semi-luxury thirteen storey and basement concrete framed condominium apartment building located in Toronto. The land cost per unit is the lowest of the section 6 sample and 50% higher than the 56/1 average. The cost per two bed unit, excluding land, is the second highest of the section 6 sample and the unit construction cost the highest of the section 6 sample. The gross area per unit is the second highest of the section 6 sample by a small margin and approximately 14% larger than the 56/1 average. The unit construction cost is the highest of the section 6 sample and reflects the features identified in the 132 Front Street development. The project was designed and constructed on a turnkey basis by the developer.

. The Bay and Edwards Development is a 476 unit semi-luxury 26 storey and basement concrete framed rental apartment building located in Toronto. The land cost per unit is the highest of the section 6 sample and two and a half times that of the 56/1 average. The cost per two bed unit, excluding land, is the second lowest of the section 6 sample, as is the unit construction cost. The gross area per unit is the second lowest of the section 6 sample and approximately 12% larger than the section 56/1 average. The unit construction cost again reflects the features identified in the 132 Front Street development. The project was designed and constructed under the CRSP program, by the developer.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments (cont'd)

11. (cont'd)

. The 441 Jarvis Street Development is a 382 unit semi-luxury twin tower 19 storeys and basement concrete framed condominium apartment building; the towers being circular on plan. The land cost per unit is the second lowest of the section 6 sample and more than twice that of the 56/1 average. The cost per two bed unit, excluding land, is the lowest of the section 6 sample as is the unit costruction cost. The gross area per unit is the lowest of the section 6 sample and within seven percentage points of the 56/1 average. The unit construction cost again reflects the features identified in the 132 Front Street development. The project was designed and constructed on a turnkey basis by the developer.

In the table that follows the average costs of the 56/1 projects are compared with those of the section 6 projects and differences in cost on a unit of accommodation basis, excluding land, allocated to major causatory factors.

Factors	Per 2 bed unit Section 6 over Section 56/1	Total %
1. Size, area	24 490.00	42.0
2. Quality, complexity	33 707.00	58.0
3. Market and procurement policy	-	-
Total	58 197.00	100.0

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments (cont'd)

13. In summary:

1. The section 56/1 and section 6 sample projects are drawn from different market sectors.

2. The section 6 land costs are, on average, more than twice those of the 56/1 projects.

3. On a percentage of construction cost basis, the soft costs of the section 56/1 and section 6 projects, are close.

4. The section 6 costs per unit are, on average, more than twice those of the 56/1 projects.

5. The unit construction costs of the section 6 projects are, on average, 39% higher than those of the section 56/1 projects.

6. The units in the section 6 projects are on average, 50% larger than those in the section 56/1 projects.

7. The 56/1 projects provide a wider range of unit types than do the section 6 projects. No handicapped units are provided in the section 6 projects.

8. Six of the seven projects in the sample were developed using a turnkey or modified turnkey contract. The seventh project was developed using the architect, general contractor method and has the lowest cost per unit of the 56/1 sample. (The converse is typically the case).

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Apartments (cont'd)

13. In summary: (cont'd)

9. There is a range of over 20% in both the areas and costs per unit of the 56/1 projects. The range in areas and costs in the section 6 sample is also high due, primarily, to the inclusion in the sample of 132 Front Street.

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Seniors Apartments

The Toronto sample contains three seniors residences, all of which were developed under the 56/1 program.

Cost and area data on these projects are listed below:

		Winona Co-op 56/1 $	Toronto Lithuanian 56/1 $	B'Nai Brith 56/1 $
Cost/unit with land	- Bach Snr	-	32 535	
	- 1 bed Snr	46 248	49 228	
	- 2 bed Snr	65 495	73 796	
	- 1 bed Hcap	59 492	50 765	
	- 2 bed	147 080	95 138	
Cost/unit without land	- Bach Snr	-	28 859	Data in files incomplete
	- 1 bed Snr	39 161	43 661	
	- 2 bed Snr	55 360	65 446	
	- 1 bed Hcap	50 778	45 198	
	- 2 bed	124 021	84 369	
Cost/bed with land		42 491	46 969	
Cost/bed without land		35 992	41 666	
Living area/bed m²		50.0	59.1	55.2
Gross area/bed m²		57.5	77.1	60.7

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Seniors Apartments (cont'd)

The notes that follow comment generally on the relative costs of the two 56/1 seniors projects on which complete sets of data were available.

1. The land costs per two bed unit show a spread of 21%; the average being close to that of the 56/1 family projects.

2. The soft costs as a percentage of construction costs show a wide variance; 31% for the Co-op project versus 15% for the Toronto Lithuanian project.

3. The unit mix is typical for developments of this type.

4. The areas per unit of accommodation show a spread of 35%; the areas being higher than the 56/1 family units due to the need for more amenity and support spaces.

5. The costs per two bed unit, excluding land, show a spread of approximately 18%; the Toronto Lithuanian project having the higher cost due primarily to a higher area per unit.

6. On a cost per m^2 basis, excluding land and parking, the Toronto Lithuanian project is approximately 11% lower in cost than the Winona Co-op.

7. The Winona Co-op is a ten storey and basement concrete framed apartment building located at 1463 Eglington Avenue West, Toronto. The design is tight spatially which accounts for the

3. SUMMARY AND CONCLUSIONS (cont'd)

TORONTO (cont'd)

Concrete Framed Seniors Apartments (cont'd)

7. (cont'd)

high unit construction cost and a cost per unit of accommodation in-line with those in other cities. The project was designed by an architect retained by the Co-op and constructed using a stipulated sum form of contract supervised by the architect.

8. The Toronto Lithuanian seniors residence is a nine storey and basement concrete framed apartment located at 1700 Bloor Street West, Toronto. The design provides much more space per unit and per person than do the other 56/1 seniors residences. Consequently although the design is straight forward and the unit construction cost relatively low, the cost per unit is higher than the Winona project and seniors projects sampled in other centres. The project was designed by an architect retained by the Society and constructed under a negotiated form of contract supervised by the architect.

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY

For the purposes of assessing relative costs and qualitative and quantitative factors, the Calgary projects have been grouped into the three generic categories listed below:

Generic Type	Project	Section		
1. Timber framed - row	. Tuxedo	56/1	2	3
	. Abbeydale II	56/1	2	3
	. Glamorganvale	6	1	3
2. Apartment buildings	. Skygate	6	1	4
A) Concrete frame	. 5807 - 2nd Street S.W.	56/1	2	4
	. Hari Housing	56/1	2	4
B) Timber Frame	. Simmering Court	6	1	4
3. Seniors residence				
Concrete frame	. Shalem Society	56/1	1	

In the comparisons that follow the lowest cost unit in each category has been used as a base from which to measure the relative costs of other projects falling into the same category. Conclusions are then drawn and the reasons for major cost differentials identified.

The timber framed row sample contains one simple two storey and basement row project; Abbeydale II, and two stacked row projects; Tuxedo and Glamorganvale.

The apartment building sample comprises three high rise concrete framed projects and a single up-market timber framed project.

The Seniors residence is a three level concrete framed structure with partial basement.

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

In the comparison that follows the lowest cost unit in each category has been used as a base from which to measure the relative costs of other projects in the same category.

The costs are tabulated, the projects evaluated and comparisons drawn. A brief narrative on each project is also included.

Cost differentials are allocated to the major causatory factors of size or area, quality and complexity and market and procurement; these being the major factors to which construction cost differentials can be attributed.

Conclusions are then drawn and summarised in point form.

Timber Framed Row

	Tuxedo 56/1 $	Abbeydale II 56/1 $	Glamorganvale 6 $
Cost/unit with land - 1 bed	29 839	-	-
Cost/unit with land - 2 bed	41 044	-	66 660
Cost/unit with land - 3 bed	-	63 404	77 272
Cost/unit without land - 1 bed	17 723	-	-
Cost/unit without land - 2 bed	24 290	-	53 917
Cost/unit without land - 3 bed	-	45 786	62 444
Cost/bed with land	22 952	21 135	31 459
Cost/bed without land	13 384	15 262	25 440
Living area/bed m²	27.3	33.8	48.7
Gross area/bed m²	43.0	50.5	48.7

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Timber Framed Row (cont'd)

1. The 56/1 sample although small is generally good whereas the section 6 sample comprises a single "project in distress" on which the cost data is suspect.

2. Tuxedo and Abbeydale are targetted towards the medium to low end of the market whereas Glamorganvale was originally intended to attract more affluent tenants.

3. The projects in the sample do not share a common unit of accommodation.

4. The land costs per unit of the 56/1 projects are, on average, between 20% to 30% higher than those of the section 6 project.

5. The soft costs of the 56/1 projects and section 6 projects are close; between 22% and 23% of the construction costs.

6. The 56/1 projects provide a range of one, two and three bed units; the average unit capacity being 2.5 beds. The single section 6 project provides a mix of two and three bed units; the average unit capacity being 2.2 beds.

7. On average the section 6 stacked row two bed units are approximately 30% larger in area than the section 56/1 units. (see note under 2 re market catered to).

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Timber Framed Row (cont'd)

8. The cost per two bed 56/1 stacked row unit, excluding land, is less than half that of the section 6 two bed stacked row units. (see previous notes re quality of cost data on Glamorganvale and market factors).

9. On a cost per m^2 basis, excluding land, the section 6 project is higher by approximately 80% than the section 56/1 projects. (see notes in 8 above).

10. The table below illustrates the relative costs, excluding land, of a two bed stacked row unit in the Tuxedo and Glamorganvale projects.

Project	Section	Relationship
Tuxedo	56/1	1.0
Glamorganvale	6	2.2

Given the content of the sample and the quality of the section 6 data the most significant factors arising from the comparison are the difference in markets catered to and the method and timing of procurement on the 56/1 projects.

11. On an individual project basis, design, location and procurement factors that contribute towards these differentials, are illustrated in the outlines that follow:

. The Tuxedo townhouse development located at 112 - 27th Avenue in the north-west quadrant of the city is a four block three

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Timber Framed Row (cont'd)

11. (cont'd)

. Tuxedo townhouse development (cont'd)

storey timber framed stacked row housing project. The land costs per unit are lower than those of the section 6 project and in line with those of the other 56/1 project. Both the unit construction cost and the area per unit are substantially lower than those of the section 6 project. The project was purchased on a turnkey basis, at fire sale prices, following the decline in the Calgary residential market in 1981 - 1982 and provides a good model of "modest and affordable housing" in the stacked row housing category.

. Abbeydale II is a twelve block, two storey and basement timber framed row housing project located at 35 Abercrove Drive in the South East quadrant of the city. The land cost per unit is higher than that of the section 6 stacked row project and in-line with the section 56/1 stacked row project. The unfinished basement area results in a low unit construction cost and the area per unit is higher than the stacked row projects, again due to each three bed unit having a full basement. The project was purchased on a turnkey basis, at fire sale prices, by The City of Calgary from a local developer following the 1981 - 1982 decline in the Calgary residential market. The project provides a good model of "modest and affordable housing" in the row housing category.

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Timber Framed Row (cont'd)

11. (cont'd)

. Glamorganvale is a multi-block three storey timber framed stacked row housing project located at 40 Glamis Drive, in the South-west quadrant of the city. The stated land cost per unit is substantially lower than the 56/1 projects, the unit construction cost much higher than the 56/1 projects and the cost per unit more than twice that of the 56/1 projects. Much of these differences can be attributed to the quality of data available; the development is a "project in distress"; the difference in market catered to and the high area per unit. The design is articulated and has a high wall to floor ratio. The project was designed and constructed on a turnkey basis by the developer.

12. In the table that follows the average costs of the 56/1 projects are compared with the section 6 projects and differences in cost on a unit of accommodation basis, excluding land, allocated to major causatory factors.

Factor		Per 2 bed stacked row unit Section 6 over Section 56/1	Total %
1.	Size, area	8 500.00	29.0
2.	Quality; complexity	13 467.00	46.0
3.	Market and procurement policy	7 300.00	25.0
	Total	29 267.00	100.0

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Timber Framed Row (cont'd)

13. In summary:

1. The 56/1 sample projects provide good data, whereas the section 6 project does not. The exercise is not a true comparison of equivalents.

2. The section 56/1 land costs are much higher than the stated land cost of the section 6 project.

3. The soft costs of both the section 56/1 and section 6 projects are, on a percentage of construction cost basis, close.

4. The 56/1 costs per unit are less than half that of the section 6 project.

5. The unit construction costs of the 56/1 projects are approximately 80% less than that of the section 6 project.

6. The units in the section 6 projects are, on average, 30% larger in area than those in the section 56/1 projects.

7. The unit mix in the section 56/1 and section 6 stacked row projects is similar.

8. The analysis illustrates the effective use of a turnkey procurement system that guaranteed both price and product to The City of Calgary, took full advantage of the turnkey contractors buying power and experience in constructing

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Timber Framed Row (cont'd)

13. In summary: (cont'd)

8. (cont'd)
modest housing and was timed to capitalise on a buyers market.

9. The overall relative costs per unit of accommodation of section 56/1 and section 6 projects are heavily weighted in favour of the former by inclusion in the sample of two projects purchased from the private sector at fire sale prices by The City of Calgary Housing Authority.

10. There are no Co-op developments in the Calgary sample.

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Apartment Buildings

	5807 - 2nd Street S.W. 56/1 $	Hari Housing 56/1 $	Skygate 6 $	Simmering Court (timber frame) 6 $
Cost/unit with land - 1 bed Hcap	-	59 478	-	-
- 2 bed Hcap	80 852	74 177	-	-
- 1 bed	50 614	55 801	66 158	58 323
- 2 bed	70 048	69 590	78 281	85 902
- 3 bed	-	81 469	-	-
Cost/unit without land - 1 bed Hcap	-	52 333	-	-
- 2 bed Hcap	65 305	64 898	-	-
- 1 bed	40 443	48 613	52 756	43 114
- 2 bed	55 773	60 446	62 262	62 530
- 3 bed	-	70 640	-	-
Cost/bed with land	43 719	43 206	54 051	44 827
Cost/bed without land	34 959	37 610	43 066	32 711
Living area/bed m²	55.1	53.8	76.7	58.3
Gross area/bed m²	55.1	55.2	76.6	58.3

1. The section 6 projects are generally up-market from the section 56/1 projects; a factor which must be taken into consideration when reviewing the comparisons. Simmering Court is an up-market timber frame development whereas the other projects are concrete framed.

2. The land costs per unit of the 56/1 projects are, on average, 40% lower than those of the section 6 projects. Location and ground conditions are the major variables influencing the differences.

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Apartment Buildings (cont'd)

3. On a percentage of construction cost basis the soft costs compare, on average, as follows:

Section 56/1	23%
Section 6	24%

4. The 56/1 projects are singles and couples oriented providing a range of one and two bed handicapped units and one, two and three bed regular units; the average unit capacity being 1.4. The section 6 projects provide one and two bed regular units; the average unit capacity being again 1.4. There are no handicapped units in the section 6 projects.

5. All projects sampled contain one bed units. On average the section 6 units are 18% larger in area than the section 56/1 units.

6. On average the section 6 projects provide 14% more space per person than do the section 56/1 projects. (direct comparison unadjusted for unit mix).

7. On average the cost per section 6 one bed unit, excluding land, is approximately 7.5% higher than the cost per section 56/1 one bed unit. The costs per unit of handicapped accommodation provided in the two 56/1 projects are close.

8. On a cost per m^2 basis excluding land, the section 56/1 projects are approximately 18% higher in cost than the section 6 projects.

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Apartment Buildings (cont'd)

9. The overall cost per person housed in the section 6 projects is approximately 5% higher than the cost per person in the section 56/1 projects. (direct comparison unadjusted for unit mix or land cost).

10. The table below illustrates the relative costs, excluding land, of a one bed unit in each of the projects sampled.

Project	Section	Relationship
5807 - 2nd Street S.W.	56/1	1.00
Hari Housing	56/1	1.10
Skygate	6	1.30
Simmering Court (timber frame)	6	1.15

The figures illustrate the points made in the preceding paragraphs which are basically that the section 6 projects provide more space at a lower unit cost than do the section 56/1 projects; the overall difference per unit of 7.5% reflecting the area factor on the one hand and on the other hand 56/1 project special amenities.

11. On an individual project basis design, location and procurement factors that contribute towards these differentials are illustrated in the outlines that follow:

. 5807 - 2nd Street S.W. is a 14 storey and basement concrete framed structure located in the south-west quadrant of the city. The land

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Apartment Buildings (cont'd)

11. (cont'd)

. 5807 - 2nd Street S.W. (cont'd)

costs per unit are higher than the other 56/1 project and substantially lower than both of the section 6 projects. The cost and gross area per unit are the lowest of the sample and the unit construction cost the highest of the sample. The high construction cost reflects the low area per unit and site conditions; the foundations being piled. The project was developed by a private sector partnership and subsequently purchased by The City of Calgary Public Housing Authority when the real estate market collapsed. The building was designed by an architect, who was also a member of the original development group, and constructed using a negotiated fixed priced form of contract.

. The Hari Housing Society Apartment Complex is a nine storey and basement concrete framed structure located at 3818 - 19th Avenue in the south-west quadrant of the city. The development also includes a two storey low rise component. The land costs per unit are the lowest of the project sample and the overall cost per unit the second highest of the sample. The unit construction cost is the second highest of the sample and the gross area per unit 20% larger than the other 56/1 project and larger than one of the section 6 projects. The relatively high construction cost reflects the treatment and form of the external wall the variety of unit types and above average site development costs. The project was designed by an architect retained by the

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Apartment Buildings (cont'd)

11. (cont'd)

. The Hari Housing Society (cont'd)

Society and constructed using a stipulated sum form of contract supervised by the architect.

. Skygate Towers is a 12 storey and basement concrete framed apartment building located at 1030 - 16th Avenue in the south-west quadrant of the city. The land costs per unit are substantially higher than the 56/1 projects and approximately 12% lower than the the other section 6 project. Both the overall cost and the gross area per unit are the highest of the sample; the latter by a wide margin. The unit construction cost is the lowest of the concrete framed buildings in the sample and reflects the straight forward standard nature of the design. The building was erected at the tail end of the boom, has been classified as a "project in distress" and shows evidence of a lack of attention to construction detailing and the correction of deficiencies. The project was designed and constructed by the developer using a turnkey form of contract.

. Simmering Court is a four storey and basement timber frame apartment building located at 926 to 928 - 18th Avenue in the south-west quadrant of the city. The project is located on the periphery of a high rent area, is of good quality and has many upper market features. The land cost per unit is the highest of the sample and the overall cost per unit the second

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Apartment Buildings (cont'd)

11. (cont'd)

. Simmering Court (cont'd)

lowest of the sample. The unit construction cost is the lowest of the sample and the gross area per unit the second lowest of the sample. The unit construction cost is substantially higher than that of a typical wood frame apartment building and reflects features such as fireplaces, cabinets and quality detailing. The project was designed and constructed by the developer using a turnkey form of contract.

12. In the table that follows the average costs of the 56/1 projects are compared with the section 6 projects and differences in cost, on a unit of accommodation basis, excluding land, allocated to major causatory factors:

Factor		Per 1 bed unit Section 6 over Section 56/1	Total $
1.	Size, area	3 407.00	100.0
2.	Quality, complexity	-	-
3.	Market and procurement policy	-	-
	Total	3 407.00	100.0

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Apartment Buildings (cont'd)

13. In summary:

1. The sample is small, comprising two concrete framed 56/1 projects, one concrete framed section 6 project and one timber framed section 6 project.

2. The section 6 land costs are, on average, 65% higher than the section 56/1 land costs.

3. On a percentage of construction cost basis, the soft costs of the section 56/1 and section 6 projects, are close.

4. The section 6 costs per unit are, on average, 7.5% higher than those of the section 56/1 projects.

5. The unit construction costs of the section 6 projects are, on average 19% lower than those of the section 56/1 projects.

6. The units in the section 6 projects are, on average, 18% larger in area than those in the 56/1 projects.

7. The 56/1 projects provide a wider range of unit types than do the section 6 projects. No handicapped units are provided in either of the section 6 projects.

8. Both 56/1 projects were designed by architects; one retained by the agency the other as a partner in a development venture.

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Apartment Buildings (cont'd)

13. In summary: (cont'd)

9. There is a wide range in both the areas and costs of the 56/1 projects. The difference in cost between the two section 6 projects is attributable primarily to the fact that Simmering Court is of timber frame construction.

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Concrete Framed Senior Citizens Apartment

The Calgary sample includes one seniors residence.

Cost and area data from this project are summarised below:

	Shalem Society $
Cost/unit - 1 bed Hcap	63 838
with land - 1 bed	52 534
Cost/unit - 1 bed Hcap	41 374
without - 1 bed	51 010
land	
Cost/bed with land	53 438
Cost/bed without land	42 145
Living area/bed m^2	66.2
Gross area/bed m^2	75.8

The notes that follow comment generally on the cost and area of the Shalem project relative to the other Calgary projects.

1. The land cost per unit of accommodation is higher than the other 56/1 apartment projects and lower than the section 6 apartment projects.

2. The soft costs are substantially lower than those of the other 56/1 projects.

3. SUMMARY AND CONCLUSIONS (cont'd)

CALGARY (cont'd)

Concrete Framed Senior Citizens Apartment (cont'd)

3. The unit mix is typical of a building of this type.

4. The area per unit of accommodation is the second highest of the project sample by a nominal amount over Hari (Skygate being the highest); a reflection of the limited mobility of many residents and the consequent need for more amenity and support spaces.

5. The cost per one bed unit is within 3% of the lowest 56/1 project and 17.5% less than the highest cost 56/1 project.(The Hari Society Building).

6. On a cost per m^2 basis excluding land and parking the Shalem Building has the lowest cost of the 56/1 sample by a margin of 7%.

7. The Shalem Society Seniors Residence is a three storey and partial basement reinforced concrete apartment building located in the south-west quadrant of the city. The project was designed and constructed on a turnkey basis by a developer working under contract to the Society.

3. SUMMARY AND CONCLUSIONS - VANCOUVER

For the purposes of assessing relative costs and qualitative and quantitative factors, the Vancouver projects have been grouped into the three generic categories listed below:

Generic Type	Project Name/Location	Section		
1. Timber framed row housing	Walnut Grove, Langley	56/1		
	Kinross Creek, Vancouver	56/1		
	Heather Place, Vancouver	56/1		
	Birch Housing, Surrey	56/1	7	
	Delta Green, Richmond	56/1		
	Burnaby Court, Burnaby	56/1		
	Salal Housing, Port Moody	56/1		10
	Wellington Apts., Surrey	6		
	Fern Leaf, Coquitlam	6	3	
	Camrose, Maple Ridge	6		
2. Apartment Buildings				
A) Timber framed	Indian Centre, Vancouver	56/1	1	
	Hazelmere Court, Vancouver	6		
	Hambry Court, Burnaby	6		5
	550 West 13th Aven., Vancouver	6	4	
	Carolina Court, Vancouver	6		
B) Concrete framed	Marina Place, Vancouver	56/1	1	

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

There are no Seniors residences included in the Vancouver Project sample.

The timber framed row housing sample includes both straight row and stacked row housing. Two projects, Heather Place and Burnaby Court, have basement parking under.

The timber framed apartments are all 3 or 3½ storey with basement parking under.

The concrete framed apartment building is a nine storey structure.

In the comparisons that follow the lowest cost unit in each category has been used as a base from which to measure the relative costs of other projects in the same category.

The costs are tabulated, the projects evaluated and comparisons drawn. A brief narrative on each project is also included.

Cost differentials are allocated to the major causatory factors of size/area, quality/complexity, and market/procurement; these being the major factors to which construction cost differentials can be attributed.

Conclusions are then drawn and summarised in point form.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

Timber Framed Row Housing

	Walnut Grove 56/1	Kinross Creek 56/1	Heather Place 56/1	Birch Housing 56/1	Delta Green 56/1	Burnaby Court 56/1	Salal Housing 56/1	Wellington Apts. 6	Fern Leaf 6	Camrose 6
Cost/unit with land - 1 bed Hcap	-	-	73 553	-	-	-	55 954	-	-	-
- 2 bed Hcap	-	-	92 241	-	-	71 908	71 915	-	-	-
- 1 bed	-	59 647	66 080	78 412	47 133	-	51 561	-	-	-
- 2 bed	73 164	67 728	76 225	87 280	68 278	64 582	74 205	-	-	-
- 3 bed	84 601	99 349	92 777	-	82 516	78 391	101 225	73 849	96 518	66 007
- 4 bed	91 933	103 566	-	-	94 055	-	-	-	-	-
Cost/unit without land - 1 bed Hcap	-	-	48 824	-	-	-	44 031	-	-	-
- 2 bed Hcap	-	-	60 854	-	-	54 754	56 256	-	-	-
- 1 bed	-	40 226	44 013	-	32 890	-	40 122	-	-	-
- 2 bed	59 233	45 573	50 544	61 134	47 133	48 748	56 322	-	-	-
- 3 bed	68 424	66 488	61 200	67 993	56 724	58 759	75 197	55 678	73 786	51 948
- 4 bed	74 283	69 277	-	-	64 496	-	-	-	-	-
Cost/bed with land	29 538	34 147	36 772	34 871	29 130	29 042	37 221	24 616	32 172	22 002
Cost/bed without land	23 895	22 914	24 346	27 179	20 059	21 854	28 582	18 559	24 595	17 316
Living area/bed m²	35.9	38.1	27.3	42.6	33.5	33.1	44.6	35.2	57.1	34.7
Gross area/bed m²	40.9	44.1	29.6	47.6	38.3	37.7	51.6	40.0	65.0	38.9

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

1. Timber Framed Row Housing

1. The land costs of the 56/1 projects are on average much higher than the section 6 projects. The reason for this differential can be attributed to location; the land costs reflecting the difference between urban Vancouver locations and suburban locations in Burnaby, Richmond, Surrey, Coquitlam, Port Moody, Langley and Maple Ridge. In general the cost per land on a $ per m² of site area decreases the futher one moves away from the centre of Vancouver.

2. The soft costs of the 56/1 projects are, on average, higher than those of the section 6 projects. The average percentage of total cost of the 56/1 projects is 11.8% vis-a-vis 7.9% for the section 6 projects.

3. The 56/1 projects provide a wide range of accommodation; including one and two bed handicap units, and one, two, three and four bedroom standard units. The section 6 projects provide only three bed units. The 56/1 projects average mix of all unit types is 2.4 beds.

4. All projects sampled contain three bed units. On average the section 6 units are 25% larger in area than the section 56/1 units. When the Fern Leaf project is excluded, the difference reduces to 3.5%.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

1. Timber Framed Row Housing (cont'd)

5. On average the section 6 projects provides 16% more space per person than do the section 56/1 projects. When the Fern Leaf project unfinished basement space is excluded, the percentage difference reduces to 3%.

6. On average the cost per 56/1 three bed unit, excluding land, is 7.5% higher than the cost per section 6 three bed unit.

7. On a cost per m^2 basis, excluding land, the section 56/1 projects are, on average, 33% higher in cost than the section 6 projects.

8. The overall cost per person housed in the section 56/1 projects is approximately 20% higher than the cost per person in the section 6 projects (Direct comparison unadjusted for unit mix).

9. The table below illustrates the relative costs, exluding land, of a three bed unit in each of the projects sampled.

Project	Section	Ratio
Walnut Grove	56/1	1.21
Kinross Creek	56/1	1.17
Heather Place	56/1	1.08
Birch Housing	56/1	1.20
Delta Green	56/1	1.00
Burnaby Court	56/1	1.04
Salal Housing	56/1	1.33

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

1. Timber Framed Row Housing (cont'd)

9. (cont'd)

Project	Section	Ratio
Wellington Apts	6	0.98
Fern Leaf	6	1.30
Camrose	6	0.92

The figures illustrate the points made in the previous paragraphs.

10. On an individual project basis design, location and procurement factors that contribute towards these differentials, are illustrated in the outlines that follows:

. Walnut Grove is located in Langley and is one of the furthest away from Vancouver Centre. It has the lowest land cost in the project sample but a high construction cost. The high construction cost includes higher foundation and site development costs than average which might well be a reflection of the low land cost. It is a co-op project using an advisory housing agency, is architect designed, and construction was procured on a turnkey basis.

. Kinross Creek is located in Vancouver and the land cost is the second highest in the sample group. The cost excluding land is 5% less than the average for the 56/1 projects. This is partly due to the lower cost

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

1. Timber Framed Row Housing (cont'd)

10. (cont'd)

. Kinross Creek (cont'd)
treated wood foundations (all other projects have reinforced concrete strip footings). The project is a co-operative using an advisory housing agency, is architect designed, of slightly better than average quality, and construction was by a select tender method.

. Heather Place is located in the central area of Vancouver close to the General Hospital. It has the highest land cost in the project sample; more than twice the cost per square meter than the next highest land cost. It was the only project built by a Public Non-Profit agency and is one of two projects which contain the most varied mix of accommodation in the sample group. It is architect designed, of average quality and construction was procured on a turnkey basis. The high construction cost is a reflection of the accommodation mix and the underground parking. It is one of two projects with underground parking in the sample group. The underground parking is not taken into account in the area comparison.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

1. Timber Framed Row Housing (cont'd)

10. (cont'd)

. Birch Housing in Surrey is the closest to the average cost including land of all the 56/1 projects. It has the highest soft costs in the sample group, which include significant development cost charges, management and maintenance costs. It has the lowest mix, two and three bed only, of accommodation in the 56/1 projects. It is a co-operative using an advisory housing agency, is architect designed and of average quality. Construction was procured on a turnkey basis.

. Delta Green in Richmond has, excluding land, the second lowest cost per unit of the 56/1 sample. The land cost includes a large 22% servicing component. It has a good mix of accommodation containing one, two, three and four bedroom units. It is a co-operative, using an advisory housing agency, is architect designed, of average quality, and construction was procured on a turnkey basis.

. Burnaby Court in Burnaby is the only Private Non-Profit Housing in the group. Including land cost it has the lowest cost of the 56/1 projects, and exluding land is the second lowest. It is one of two projects which have underground parking. It is the smallest project by number of units and beds in the 56/1 group, comprising two and three bed regular units and two bed handicapped units. Procurement was by the turnkey method.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

1. Timber Framed Row Housing (cont'd)

10. (cont'd)

. Salal Housing in Port Moody is the most expensive of all the projects excluding land cost. The land cost is well below average and reflects the location. The project is one of two with the largest mix of units, including handicapped, in the sample group. It is of better than average quality and was an architectural design award winner. It is a co-operative, used an advisory housing agency and construction was procured on a select tender basis to union contractors only. The construction procurement method is the most significant factor in its high cost.

. Wellington is located in Surrey and this is reflected in the low land cost. It is a developer/builder turnkey project and comprises all three bed units. It is architect designed and of average quality. Landscaping costs are below average and considerably less than all the 56/1 projects.

. Fern Leaf is located in Coquitlam and this is reflected in the low land cost. It is a developer/builder turnkey project and comprises all three bed units. It has the lowest cost per square meter of gross area which reflects the much larger than average gross area per unit (42.5% above the average Section 6). This additional area is largely unfinished basement space. The design by the developer is a little better than average quality. Landscaping costs are considerably less than the other projects.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

1. Timber Framed Row Housing (cont'd)

10. (cont'd)

. Camrose is located in Maple Ridge and is one of the furthest away from Vancouver; a factor which is reflected in the low land cost. It is a developer/builder turnkey project and comprises all three bed units. It is of average quality design. The landscaping cost is the highest of the three section 6 projects but 32% less than the average landscaping cost of the 56/1 projects.

11. In the table that follows the average costs of the 56/1 projects are compared with the section 6 projects and differences in cost, on a unit of accommodation basis, excluding land, allocated to major causatory factors.

Factor	Cost Difference per 3 bed unit Section 56/1 over Section 6 (a)	% of Total
1. Size/area (b)	1 987	44.2
2. Quality/complexity (b)	864	19.2
3. Market/procurement	1 647	36.6
Total	4 498	100.0

12. In summary:

1. The sample is generally good.

2. The 56/1 land costs per unit are, on average, 33% less than the section 6 land costs. This difference can be attributed to location.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

1. Timber Framed Row Housing (cont'd)

12. In summary: (cont'd)

3. On a percentage of construction cost basis, the soft costs of the 56/1 and section 6 projects compare as follows:

Section 56/1	17.2%
Section 6	11.2%

4. The 56/1 costs per unit excluding land, are, on average 7.4% higher than those of the section 6 projects. Excluding the Fern Leaf project the difference is 21%. There is a wide range in the costs per unit of the section 56/1 projects.

5. The unit construction costs of the 56/1 projects are, on average, 33% higher than those of the section 6 projects.

6. The units in the section 6 projects are, on average, 25% larger in area than those in the 56/1 projects. When Fern Leaf is excluded the differential reduces to 4%.

7. The 56/1 projects provide a wider range of both regular and handicapped units than do the section 6 projects. There are no handicapped units in any of the section 6 projects.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

1. Timber Framed Row Housing (cont'd)

12. In summary: (cont'd)

8. Within the 56/1 sample there is a wide range in cost per unit, cost per m^2 and area per unit.

9. The unit mix and design of the section 6 projects follow more of a standard pattern than do those of the 56/1 projects.

10. The landscaping costs on all the 56/1 projects are higher than those on the section 6 projects.

11. Of the 56/1 projects five were developed using turnkey forms of contract and two using the traditional architect and general contractor method. The costs per unit of the architect designed projects show a wide spread; one being below the average and one the highest of the 56/1 sample. The high cost of the latter can be attributed to a union only clause in the contract documents.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

Apartment Projects

	Timber Framed					Concrete Framed
	Van. Indian Centre 56/1	Hazelmere Court 56/1	Hambry Court 6	1550 West 13th Ave. 6	Carolina Court 6	Marina Place 56/1
Cost/unit with land - 1 bed Hcap	-	-	-	-	-	77 857
- 2 bed Hcap	-	-	-	-	-	86 583
- Bachelor	-	-	-	59 500	-	-
- 1 bed	57 410	61 657	57 689	84 036	52 053	75 417
- 2 bed	67 123	72 505	70 584	106 524	77 894	82 633
- 3 bed	-	-	-	-	-	100 085
Cost/unit without land - 1 bed Hcap	-	-	-	-	-	69 952
- 2 bed Hcap	-	-	-	-	-	77 697
- Bachelor	-	-	-	41 658	-	-
- 1 bed	45 887	47 801	43 389	57 821	37 411	67 526
- 2 bed	53 554	55 944	52 496	72 634	54 853	73 931
- 3 bed	-	-	-	-	-	89 422
Cost /bed with land	35 731	51 198	40 562	70 132	45 856	42 426
Cost/bed without land	28 515	39 637	30 281	48 233	32 691	37 959
Living area/bed m²	40.7	52.1	52.1	52.4	49.6	44.6
Gross area/bed m²	45.6	55.7	55.7	56.9	53.6	50.2

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

2. Apartment Buildings

Five of the six apartment buildings are 3 to 3½ storey and basement timber framed structures. The sixth project is a seven storey concrete framed building and is included in the table for information only.

1. The land cost of the 56/1 project is, considerably less than the average land cost of the section 6 projects. The only section 6 project with a lower land cost based on $ per m² of site area is located in Burnaby i.e. away from the centre of Vancouver. The land cost for the 56/1 projects also represents a lower % of the total costs, (10.5% for Marina Housing and 20.2% for the Vancouver Indian Centre vis-a-vis an average of 27.4% for the section 6 projects).

2. The soft costs of the 56/1 project are higher than stated costs of the section 6 projects. The Vancouver Indian Centre is 13.6% and Marina Housing 11.5% of the total cost, compared with an average of 8.6% for the section 6 projects.

3. The mix of accommodation on the timber framed apartments is very similar, all one and two bedroom units except for 550 West 13th Avenue which has 9 bachelor units (16% of total). The section 6 projects have a higher proportion of single bed units; an average 1.37 beds per unit vs 1.80 for the 56/1 project. There are no handicapped units in the timber frame apartment sample.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

2. Apartment Buildings (cont'd)

4. The concrete framed high-rise, Marina Place, provides the widest range of units in the project sample.

5. All projects sampled contain two bed units, on average, the section 6 units are 3% larger in area than the section 56/1 units. The concrete framed 56/1 project has an area per unit 10% higher than the 56/1 timber frame average.

6. On average the cost per 56/1 two bed unit, excluding land, is 10% lower than the cost per section 6 two bed unit. At the one bed unit level the difference is 2%. The concrete framed 56/1 project has a cost per two bed unit excluding land, higher than any other project except two of the up-market Toronto section 6 high-rises.

7. On a cost per m^2 basis, excluding land, the section 56/1 projects are, on average, 14% higher in cost than the section 6 projects.

8. The overall cost per person housed in the section 56/1 projects is approximately 30% lower than the cost per person in the section 6 projects. (Direct comparison unadjusted for mix).

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

2. Apartment Buildings (cont'd)

9. The table below illustrates the relative costs, excluding land, of a two bed unit in each of the projects sampled.

Project	Section	Ratio
Vancouver Indian Centre	56/1	1.00
Hazelmere Court	6	1.05
Hambry Court	6	0.98
550 West 13th Avenue	6	1.36
Carolina Court	6	1.02
Marina Place (concrete high rise)	56/1	1.38

The figures illustrate the points made in the previous paragraphs.

10. On an individual project basis design, location and procurement factors that contribute towards these differentials, are illustrated in the outlines that follow:

. The Vancouver Indian Centre is a private non-profit project located in an area that is comparable with the Hazelmere and Carolina Court projects. It has the lowest land cost in the project sample other than Hambry Court which is located further out in Burnaby. The soft costs are higher than all the section 6 projects which possible reflects the project management procurement method. The construction cost per square metre of gross floor area is close to the

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

2. Apartment Buildings (cont'd)

10. (cont'd)

. The Vancouver Indian Centre (cont'd)
average of the section 6 projects. The project is architect designed and of better than average quality; indicative of a competitive market and competent project managment.

. Hazelmere Court is located in Vancouver and is the closest to the average overall cost of all the projects in this sample. It is an architect designed project of average quality. Construction was procured on a turnkey basis.

. Hambry Court is located in Burnaby and has the lowest land cost of all the projects in this sample. It also has the lowest construction cost of all the section 6 projects in the group. It is architect designed, of less than average quality (except for the triple glazing to provide a sound barrier from Kingsway, a major urban traffic route). Construction was procured on a turnkey basis.

. 550 West 13th Avenue is the most expensive of the timber framed projects both with and without the land. The land cost is by far the most expensive in the sample group. The soft costs are also much higher than the other Section 6 projects. The project is architect designed and of average quality. Construction was by the turnkey method. It was the latest i.e. most recently completed project in the sample group.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

2. Apartment Buildings (cont'd)

10. (cont'd)

. Carolina Court is located in Vancouver and is the closest to the average land cost of the section 6 projects. Construction costs and soft costs are 14% below average. It is architect designed and of average quality. Construction was procured by the developer/builder on a turnkey basis.

. Marina Housing comprises one Phase of a co-operative project. It is a seven storey concrete frame building with underground parking. It is located in a high profile desirable area in False Creek close to downtown Vancouver. Never-the-less the land cost appears reasonable by comparison with the other projects, and only represents 10.5% of the total cost. Design and construction were procured by the City of Vancouver.

11. In the table that follows the cost of the 56/1 project is compared with the average cost of the section 6 projects and differences in cost, on a unit of accommodation basis, excluding land, allocated to major causatory factors.

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

2. Apartment Buildings (cont'd)

11. (cont'd)

Factor	Cost Difference two bed unit Section 6 over Section 56/1	% of Total
1. Size/area	1 315.00	24.0
2. Quality/ complexity	2 763.00	51.0
3. Market/ procurement	1 350.00	25.0
Totals	5 428.00	100.0

12. In summary:

1. The 56/1 data is derived from a single project. This should be bourne in mind when assessing the relevance of comparative data.

2. The 56/1 land costs per unit are, on average, 66% lower than the section 6 land costs.

3. On a percentage of construction cost basis, the soft costs of the 56/1 and section 6 projects, compare as follows:

section 56/1	20.5%
section 6	13.0%

3. SUMMARY AND CONCLUSIONS (cont'd)

VANCOUVER (cont'd)

2. Apartment Buildings (cont'd)

12. In summary (cont'd)

4. The 56/1 costs per unit, excluding land, are on average 10% lower than those of the section 6 projects. The cost per unit of the 555 West 13th Avenue project is approximately 25% higher than the section 6 average.

5. The unit construction costs of the 56/1 project are, on average, the same as those of the section 6 projects.

6. There is little difference in area provided per unit between the section 56/1 and section 6 projects. The area per unit in the concrete framed Marina Co-op project is 10% higher than that provided in the other projects.

7. The range of accommodation provided in both the section 56/1 and section 6 projects is similar. (Not typical; attributable to unit mix of single 56/1 project in sample). The single 56/1 concrete framed project provides a typically wider range of accommodation.

8. With the exception of one project; 555 West 13th Avenue; the price range within the section 6 sample is low.

4. CAUSES OF CONSTRUCTION COST VARIANCES

In comparing the costs of different construction projects built at different times and in different places, it is first important to appreciate that there is nothing finite or absolute about the price of a given piece of construction. Well documented studies have shown that the inherent variability of any construction price is in the range of 8% to 11%, which is to say that one can reasonably expect two out of three projects to exhibit a variance of at least this margin depending solely on the market and bidding climate at any particular time. Thus, a project bid at $ 500.00 per m^2 could just as easily have been priced within a range of $ 445.00 to $ 555.00, due solely to the intangible issues which affect the level of construction bids.

When comparing construction costs at the whole project level, these variances will be compounded by a whole series of other factors:

1. Time of construction; we all appreciate that construction prices vary over time. As a rule, they increase from year to year, although there have been times when they have remained static or fallen according to the fluctuation of supply and demand in the construction market place. This is inflation or escalation and any comparisons between buildings built at different times, to be fair, must attempt to eliminate this variable.

2. Location; again, it is well understood that construction costs vary according to the location of the project. Generally speaking, those projects located in remote areas away from sources of supply of labour and materials tend to cost more. Further, micro-economic influences on supply and demand may have temporary effects on price levels.

4. CAUSES OF CONSTRUCTION COST VARIANCES (Continued)

3. Scope; in comparing projects, it is important to ensure that one is comparing like with like. The basis of comparison is often the construction contract which in one project may include, for example, appliances, which in another have been purchased separately. It is therefore important to ensure in any comparison that project scope is similar.

4. Quantitative; give two architects the problem of wrapping a building around a stated space requirement and one will find that the basic quantitative responses of each will be different. In construction, one pays for the quantity of materials required; the more efficient the basic design, the lower in theory the cost. Thus, one of the architects will be able to translate the net floor requirements into a building requiring less gross floor area, another may adopt a design concept which involves enclosing the required space more effectively with more efficient building shape and height characteristics. These and other considerations dictate the magnitude of the quantities of materials and labour required to construct the building. Again, this can have a significant influence on cost differentials between projects which are being compared solely on a cost per unit of accommodation basis.

5. Qualitative factors; Construction costs are heavily influenced by the quality or performance levels specified. Generally speaking, the higher the level called for, the higher the cost. This of course may often be justified on the basis of life cycle cost efficiency, but it can contribute to differences in first or capital costs.

4. CAUSES OF CONSTRUCTION COST VARIANCES (Continued)

6. Other considerations; other considerations than building hardware and configuration, mostly of an intangible nature, influence the level of construction prices. These may be broadly classified under the following headings:

A) Legislative Enactments - typical areas in which legislative controls may affect price levels are:

- Fair wage regulations or union only labour stipulations.

- Work hour and overtime regulations and other labour standards.

- Environmental protection.

- Safety regulations.

B) Specification Restrictions - non-proprietary specifications on public projects, preference to local suppliers, etc.

C) Documentation - the degree and quality of documentation put out on projects can have an influence on prices, particularly where specifications are especially restrictive.

D) Market Conditions - prices in the construction market are heavily influenced by the laws of supply and demand. Generally speaking, during periods of high demand, prices rise faster than changes in the cost of labour and material can justify and when demand falls prices also tend to fall, often to a level which seems to ignore upward movements of labour and material prices.

4. CAUSES OF CONSTRUCTION COST VARIANCES (Continued)

6. (Continued)

E) Cost Control Policies - methods of setting budget targets and the degree of cost control exercised, especially during design, can influence the level of building prices. Buildings tend to cost what they are allowed to cost by those responsible for their funding.

5. APPROACH TO STUDY

Following briefing sessions with C.M.H.C. national office staff a list of sample projects was drawn up and introductory meetings held with C.M.H.C. staff in Montreal, Toronto, Calgary and Vancouver. The availability of data on the sample projects was then determined and, where necessary, projects substituted for those on the list that proved unsuitable for analysis or on which information was lacking.

B.T.Y. and Roy & Associates staff then visited the four local offices, reviewed the files in detail, obtained copies of all forms and correspondence pertaining to project cost, took measurements from contract documents and quantified a range of design characteristics determined as having most impact on relative costs. The latter can be summarised under the following headings.

A) Functional or Program Related

- Type and No. of Units.
- Type and No. of rooms per unit.
- Type and No. of parking spaces.
- Area per category of space.
- Program related features such as amenity space, provision for handicapped and the like.

5. APPROACH TO STUDY (Continued)

B) Physical or Design Related

. Generic Type	- Row, apartment etc. by type of construction.
. Foundations	- Strip or piles; any special conditions.
. Structure	- Type and framed area; concrete, wood or steel.
. Roof and External Walls	- Type, specification levels and areas of enclosing elements.
. Interiors	- Type, specification levels and areas of finished areas, partitions and doors.
. Stairs and Elevators	- Number, type and levels served.
. Fittings	- Scope; appliances, fireplaces etc.
. Mechanical	- Type of heating system, type of fuel, number of plumbing fixtures.
. Electrical	- Power, panels; electric heating if any.
. Site	- Level of improvements, soft and hard landscaping.

5. APPROACH TO STUDY (Continued)

Finally a check was made to ensure that all available information on non-construction costs such as land and soft costs had been obtained.

The data extracted from the files was then taken back to B.T.Y. offices, and a set of standard pro forma analysis forms, designed by C.M.H.C. staff, completed for each of the 60 projects.

The average size of the projects sampled varied considerably as is illustrated below:

Centre	Average Size by No. of Units	Smallest No. of Units	Largest No. of Units
Montreal	36	1	117
Toronto	140	27	476
Calgary	94	33	156
Vancouver	51	18	86

The section 56/1 project analyses could, for the most part be completed by using cost data obtained from the files. Information gaps were however encountered on certain of the private non-profit projects.

The section 6 analyses, on the other hand, had to be prepared using estimating techniques and much intuitive judgement in allocating costs to the three major project cost components.

5. APPROACH TO STUDY (Continued)

Following completion of the broad scope pro forma analysis construction cost elemental analysis and elemental specifications were prepared for each of the 60 projects.

On completion the analyses were summarized by City, funding agency and generic type in a manner calculated to allow comparisons to be made. In general some difficulty was experienced in being able to draw comparisons between true equivalents in the section 56/1 and section 6 project samples.

All costs established previously were brought to the same base in time through C.D.S. time cost index for seven Canadian Cities. Using the index costs were brought to a common base of January 1984 by applying the appropriate multiplier to the tender date costs. The start date rather than the mid-point of construction approach was used bearing in mind the average size of the projects and the fact that all construction and construction related costs include sufficient escalation to complete the projects.

The results were then summarized by generic type on a city basis, and comparison drawn between areas per unit and person, costs per m^2, cost per unit of accommodation common to the sample and cost per person accommodated.

From the foregoing further summaries were prepared, anomalies identified and where necessary corrected, and the content of the executive summary determined.

5. APPROACH TO STUDY (Continued)

As part of the overall scope of work energy analysis data sheets were prepared and supplied to C.M.H.C. in order that comparative energy analyses could be run using a C.M.H.C. developed program. These sheets generally included a description of building type, areas and R values of enclosing external elements, descriptions of heating systems and type of fuel utilized.

6. COMPARATIVE ANALYSIS OF SAMPLE PROJECTS

This section contains the following tables and summaries.

1. A list of sample projects by location and section.

2. Schedules of accommodation.

3. Cost summaries; total and by unit; in actual dollars and to a January 1984 $ base.

4. Areas per unit of accommodation.

5. A cost and area comparison organised by City and project type.

6. An elemental comparison organised by City and project type.

The data contained in the above is an abstract of the detailed information contained in section 8 and forms the basis from which the section 2 and 3 conclusions are drawn.

MONTREAL

6.

SECTION 56/1 - PROJECT SAMPLE

C.M.H.C. File	Project	C.M.H.C. Category	Design	Construction	No. of Units	No. of Beds	Area per bed m² Living	Bsmts	Total	Construction Start	Index
37.421.492	5065 Rue Clark, Coin Sud-Ouest de Laurier & Clark; Co-op Mercier	Co-op	3½ storey apts	Wood frame	14	28	46.4	inc.	46.4	Oct. 82	
37.428.711	Residence Quatre Soleils, 488 Rue Brien, Ville Des Laurentides	(Snrs) Private Non-Profit	3 storey apt.	Concrete	21	29	40.3	inc.	40.3	Aug. 82	
37.540.804	Co-operative D'Habitation Feu Vert, 4277 Boulevard Couture, St. Leanard	Co-op	2 storey apt	Wood frame	18	50	45.2	inc.	45.2	Oct. 82	
37.042.496	Residence Les Retrouvailles, 1600 Est Legendre	(Snrs) Private Non-Profit	6 storey hi-rise apt	Concrete	117	218	50.6	inc.	50.6	Mar. 82	
37.425.972	Residence Ukrainienne, 5-540 Mennereuil	(Snrs) Private Non-Profit	4 storey apt	concrete	83	91	77.9	inc.	77.9	Oct. 83	
37.540.465	Co-op Haitienne D'Habitations 1260 Marc Aurele Fortin	Co-op	2 storey row; basement	Wood frame	46	143	33.9	16.1	50.0	Dec. 83	
37.275.617	Co-op D'Habitation La Tannerie Il, Rose de Lima S.W. & N.W. Workman	Co-op	2 storey row; basement	Wood frame	38	114	30.3	16.0	46.3	Mar. 82	
36.200.152	Co-op D'Habitation St. Sulpice, Nord 'D' Ende Journait, Est De Christophe Columbe	Co-op	2 storey row; basement	Wood frame	31	93	45.3	16.7	62.0	June 80	
37.271.061	Co-op Les Bordages, 2529 Grand Trunk	Co-op	3 storey row; basement	Wood frame	26	73	32.9	17.0	49.9	Mar. 82	
	Co-op La Source	Co-op	no use - contains renovations								

SECTION 56/1 - PROJECT SCHEDULE OF ACCOMMODATION

Total	Project	Section of N.H.A.	Senior Citizens			Handicapped			Other			
			Bach	1 bed	2 bed	1 bed	2 bed	3 bed	4 bed	1 bed	2 bed	3 bed	4 bed
14	5065 Rue Clark	Co-op	-	-	-	1	-	-	-	2	8	3	-
21	Residence Quatre Soleils	Private Non-Profit (Snrs)	-	12	8	1	-	-	-	-	-	-	-
18	Co-op Feu Vert	Co-op	-	-	-	-	-	-	-	-	6	10	2
117	Residences Les Retrouvailles	Private Non-Profit (Snrs)	-	26	81	10	-	-	-	-	-	-	-
83	Residence Ukrainienne	Private Non-Profit (Snrs)	4	71	4	-	4	-	-	-	-	-	-
46	Co-op Haitienne	Co-op	-	-	-	-	-	-	-	-	-	41	5
38	Co-op La Tannerie	Co-op	-	-	-	-	-	-	-	-	-	38	-
31	Co-op St. Sulpice	Co-op	-	-	-	-	-	-	-	-	-	31	-
26	Co-op Des Bordages	Co-op	-	-	-	-	-	-	-	-	5	21	-

SECTION 56/1 - PROJECT COST SUMMARY

Project	Project Cost Actual					Project Cost to Jan '84 Base			
	Land	Soft	Construction	Total	Index	Land	Soft	Construction	Total
5065 Rue Clark	42 536	86 870	489 349	618 755	239.8 / 237.1	43 020	87 859	494 922	625 801
Residence Quatre Soleils	8 024	172 797	828 188	1 009 009	239.8 / 234.8	8 195	176 477	845 824	1 022 301
Co-op Feu Vert	134 886	81 723	749 793	966 402	239.8 / 237.1	136 422	82 654	758 331	977 407
Residence Les Retrouvailles	277 795	676 103	5 134 919	6 088 817	239.8 / 233.6	285 168	694 047	5 271 205	6 250 420
Residence Ukrainienne	167 276	461 050	3 150 399	3 778 725	239.8 / 238.8	167 976	462 981	3 163 592	3 794 549
Co-op Haitienne	237 591	217 135	2 360 956	2 815 682	239.8 / 239.8	237 591	217 135	2 360 956	2 815 682
Co-op La Tannerie	261 192	177 174	1 812 820	2 251 186	239.8 / 233.6	268 124	181 876	1 860 934	2 310 934
Co-op St. Sulpice	194 109	132 507	1 100 961	1 427 577	239.8 / 193.2	240 928	164 468	1 366 514	1 771 910
Co-op Des Bordages	81 275	129 345	1 078 303	1 288 923	239.8 / 233.6	83 432	132 778	1 106 922	1 323 132

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
5065 Rue Clark	1 bed Hcap	1	36 224	-	36 224	2 320	38 544	36 637	-	36 637	2 346	38 983
	1 bed	2	31 102	-	31 102	2 320	33 422	31 456	-	31 456	2 346	33 802
	2 bed	8	40 754	-	40 754	3 038	43 792	41 218	-	41 218	3 073	44 291
	3 bed	3	50 585	-	50 585	3 757	54 342	51 161	-	51 161	3 800	54 961
	per bed	(28)	20 579	-	20 579	1 519	22 098	20 813	-	20 813	1 536	22 349
Residence Quatre Soleils	1 bed Snrs	12	43 108	460	43 568	349	43 917	44 026	470	44 496	356	44 852
	2 bed Snrs	8	52 688	460	53 148	426	53 574	53 810	470	54 280	435	54 715
	1 bed Hcap	1	52 513	460	52 973	426	53 399	53 631	470	54 101	435	54 536
	per bed	(29)	34 184	333	34 517	277	34 794	34 912	340	35 252	283	35 535
Co-op Feu Vert	2 bed	6	37 657	566	38 223	6 195	44 418	38 086	572	38 658	6 266	44 924
	3 bed	10	47 911	566	48 477	7 856	56 333	48 457	572	49 029	7 945	56 974
	4 bed	2	58 138	566	58 704	9 580	68 284	58 800	572	59 372	9 689	69 061
	per bed	(50)	16 427	203	16 630	2 698	19 328	16 614	205	16 819	2 729	19 548

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Residence Les Retrouvailles	1 bed Snrs	26	36 114	2 259	38 373	1 809	40 182	37 073	2 319	39 392	1 857	41 249
	2 bed Snrs	81	49 813	2 259	52 072	2 495	54 567	51 135	2 319	53 454	2 561	56 015
	1 bed Hcap	10	57 285	2 259	59 544	2 870	62 414	58 805	2 319	61 124	2 946	64 070
	per bed	(218)	25 443	1 213	26 656	1 275	27 930	26 118	1 245	27 363	1 308	28 671
Residence Ukrainienne	Bach Snrs	4	30 002	345	30 347	1 410	31 757	30 128	346	30 474	1 416	31 890
	1 bed Snrs	71	41 742	345	42 087	1 962	44 049	41 917	346	42 263	1 970	44 233
	2 bed Snrs	4	59 352	345	59 697	2 780	62 477	59 601	346	59 947	2 792	62 739
	2 bed Hcap	4	65 427	345	65 772	2 780	68 552	65 701	346	66 047	2 792	68 839
	per bed	(91)	39 371	315	39 686	1 838	41 524	39 536	316	39 852	1 846	41 698
Co-op Haitienne	3 bed	41	54 442	557	54 999	5 113	60 112	54 442	557	54 999	5 113	60 112
	4 bed	5	64 070	557	64 627	5 591	70 218	64 070	557	64 627	5 591	70 218
	per bed	(143)	17 849	179	18 028	1 662	19 690	17 849	179	18 028	1 662	19 690

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Co-op La Tannerie	3 bed	38	51 807	561	52 368	6 874	59 242	53 182	576	53 758	7 056	60 814
	per bed	(114)	17 269	187	17 456	2 291	19 747	17 727	192	17 919	2 352	20 271
Co-op St. Sulpice	3 bed	31	39 218	571	39 789	6 262	46 051	48 677	709	49 386	7 772	57 158
	per bed	(93)	13 073	190	13 263	2 087	15 350	16 226	236	16 462	2 590	19 052
Co-op Des Bordages	2 bed	5	40 826	1 142	41 968	2 808	44 776	41 910	1 172	43 082	2 883	45 965
	3 bed	21	46 372	1 142	47 514	3 202	50 716	47 603	1 172	48 775	3 287	52 062
	per bed	(73)	16 136	407	16 543	1 113	17 656	16 564	418	16 982	1 143	18 125

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
5065 Rue Clark	1 bed Hcap	1	58.0	-	4.4	2.9	-	5.5	70.8	7.5	78.3
	1 bed	2	58.0	-	4.4	2.9	-	5.5	70.8	7.5	78.3
	2 bed	8	76.0	-	5.7	3.9	-	7.1	92.7	9.8	102.5
	3 bed	3	94.0	-	7.1	4.8	-	8.8	114.7	12.1	126.8
	Per bed	(28)	38.0	-	2.9	1.9	-	3.6	46.4	4.9	51.3
Residence Quatre Soleils	1 bed Snrs	12	45.0	-	0.5	2.7	-	3.4	51.6	5.0	56.6
	2 bed Snrs	8	55.0	-	0.6	3.3	-	4.2	63.1	6.0	69.1
	1 bed Hcap	1	55.0	-	0.6	3.3	-	4.2	63.1	6.0	69.1
	per bed	(29)	35.2	-	0.4	2.1	-	2.7	40.4	3.8	44.2
Co-op Feu Vert	2 bed	6	97.0	-	-	-	-	6.9	103.9	11.6	115.5
	3 bed	10	123.0	-	-	-	-	8.7	131.7	14.7	146.4
	4 bed	2	150.0	-	-	-	-	10.7	160.7	17.9	178.6
	per bed	(50)	42.2	-	-	-	-	3.0	45.2	5.1	50.3

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Residence Les Retrouvailles	1 bed Snrs	26	58.0	-	1.2	0.6	-	4.2	64.0	7.8	71.8
	2 bed Snrs	81	80.0	-	1.6	0.8	-	5.9	88.3	10.8	99.1
	2 bed Hcap	10	92.0	-	1.9	0.9	-	6.8	101.6	12.3	113.9
	per bed	(218)	40.9	-	0.8	0.4	-	3.0	45.1	5.5	50.6
Residence Ukrainienne	Bach Snrs	4	46.0	-	2.5	3.3	0.2	-	52.0	7.6	59.6
	1 bed Snrs	71	64.0	-	3.5	4.6	0.3	-	72.4	10.5	82.9
	2 bed Snrs	4	91.0	-	4.9	6.5	0.5	-	102.9	15.0	117.9
	2 bed Hcap	4	91.0	-	4.9	6.5	0.5	-	102.9	15.0	117.9
	per bed	(91)	60.1	-	3.3	4.3	0.3	-	68.0	9.9	77.9
Co-op Haitienne	3 bed	41	131.5	-	-	-	-	-	131.5	20.9	152.4
	4 bed	5	143.8	-	-	-	-	-	143.8	22.9	166.7
	per bed	(143)	43.1	-	-	-	-	-	43.1	6.9	50.0

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Co-op La Tannerie	3 bed	38	124.4	-	-	-	-	-	124.4	14.6	139.0
	per bed	(114)	41.5	-	-	-	-	-	41.5	4.8	46.3
Co-op St. Sulpice	3 bed	31	164.5	-	-	-	-	-	164.5	21.6	186.1
	per bed	(93)	54.8	-	-	-	-	-	54.8	7.2	62.0
Co-op Des Bordages	2 bed	5	114.0	-	-	-	-	-	114.0	12.1	126.1
	3 bed	21	130.0	-	-	-	-	-	130.0	13.8	143.8
	per bed	(73)	45.1	-	-	-	-	-	45.1	4.8	49.9

SECTION 6 - PROJECT SAMPLE SUMMARY

C.M.H.C. File	Project	C.M.H.C. Category	Design	Construction	No. of Units	No. of Beds	Area per bed m² Living	Bsmts	Total	Construction Start	Index
38.112.694	1956 Lionel Groulx	Private CRSP	2 storey row; basement	Wood frame	1	3	46.4	8.3	54.7	Nov. 82	
38.104.303	614 Des Seigneurs	Private CRSP	2 storey row; basement	Wood frame	1	3	46.4	8.3	54.7	Nov. 82	
38.108.486	595 Chatham	Private CRSP	2 storey row; basement	Wood frame	1	3	44.4	8.3	52.7	Nov. 82	
38.452.090	1700 Louis Joseph Gauthier	Private CRSP	2 storey row; basement	Wood frame	1	3	44.4	8.3	52.7	Sept. 83	
37.479.127	Maison Prevert, 355 - 10th Avenue Lachine	Private CRSP	3 storey apt; basement	Wood frame	21	24	62.6	inc	62.6	Dec. 83	
37.423.605	La Fleuralie, 6892 E. Boulevard Gouin	Rental CRSP (Snrs)	12 storey Hi-rise	Concrete	84	108	59.5	inc	59.5	Oct. 82	
37.422.037	Rue Goyer & Bedford	Rental CRSP	4 storey apt	Wood frame	96	188	44.2	-	44.2	Sept. 82	
37.426.921	12004 Rue Ontario Est.	Rental CRSP	3 storey; apt; basement	Wood frame	16	35	45.1	inc	45.1	July 83	

SECTION 6 - PROJECT SCHEDULE OF ACCOMMODATION

Total	Project	Section of N.H.A.	Senior Citizens			Handicapped				Other			
			Bach	1 bed	2 bed	1 bed	2 bed	3 bed	4 bed	1 bed	2 bed	3 bed	4 bed
1	1956 Lionel Groulx	Private	-	-	-	-	-	-	-	-	-	1	-
1	614 Des Seigneurs	Private	-	-	-	-	-	-	-	-	-	1	-
1	595 Chatham	Private	-	-	-	-	-	-	-	-	-	1	-
1	1700 Louis Joseph Gauthier	Private	-	-	-	-	-	-	-	-	-	1	-
21	Maison Prevert	Private	-	-	-	-	-	-	-	18	3	-	-
84	La Fleuralie	Rental CRSP (Snrs)	-	60	24	-	-	-	-	-	-	-	-
96	Rue Goyer & Bedford	Rental CRSP	-	-	-	-	-	-	-	8 Bach 12 1 bed	60	16	-
16	12004 Rue Ontario Est	Rental CRSP	-	-	-	-	1	-	-	-	12	3	-

SECTION 6 - PROJECT COST SUMMARY

Project	Project Cost Actual Land	Soft	Construction	Total	Index	Project Cost To Jan '84 Base Land	Soft	Construction	Total
1956 Lionel Groulx	3 600	540	55 098	59 238	239.8/237.1	3 641	546	55 725	59 912
614 Des Seigneurs	3 600	540	55 098	59 238	239.8/237.1	3 641	546	55 725	59 912
595 Chatham	3 600	540	55 098	59 238	239.8/237.1	3 641	546	55 725	59 912
1700 Louis Josep Gauthier	12 900	438	74 100	87 438	239.8/238.8	12 954	440	74 410	87 804
Maison Prevert	86 000	59 549	431 889	577 438	239.8/238.8	86 360	59 798	433 698	579 856
La Fleralie	155 000	226 010	2 954 454	3 335 464	239.8/237.2	156 699	228 487	2 986 838	3 372 024
Rue Goyer & Bedford	374 000	347 000	2 475 000	3 196 000	239.8/237.2	378 100	350 804	2 502 129	3 231 033
12004 Rue Ontario Est.	45 000	54 500	406 000	505 500	239.8/238.5	45 245	54 797	408 213	508 255

SECTION 6 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
1956 Lionel Groulx	3 bed	1	52 693	2 945	55 638	3 600	59 238	53 293	2 979	56 272	3 641	59 913
	per bed	(3)	17 564	982	18 546	1 200	19 746	17 764	993	18 757	1 214	19 971
614 Des Seigneurs	3 bed	1	52 693	2 945	55 638	3 600	59 238	53 293	2 979	56 272	3 641	59 913
	per bed	(3)	17 564	982	18 546	1 200	19 746	17 764	993	18 757	1 214	19 971
595 Chatham	3 bed	1	52 693	2 945	55 638	3 600	59 238	53 293	2 979	56 272	3 641	59 913
	per bed	(3)	17 564	982	18 546	1 200	19 746	17 764	993	18 757	1 214	19 971
1700 Louis Joseph Gauthier	3 bed	1	69 778	4 760	74 538	12 900	87 438	70 070	4 780	74 850	12 954	87 804
	per bed	(3)	23 259	1 587	24 846	4 300	29 146	23 356	1 594	24 950	4 318	29 268
Maison Frevert	1 bed	18	19 153	2 447	21 600	3 952	25 552	19 233	2 457	21 690	3 969	25 659
	2 bed	3	24 022	2 447	26 469	4 956	31 425	24 123	2 457	26 580	4 977	31 557
	per bed	(24)	17 367	2 141	19 508	3 583	23 091	17 440	2 150	19 590	3 598	23 188
La Fleuralie	1 bed (Snrs)	60	35 949	401	36 350	1 771	38 121	36 343	405	36 748	1 790	38 538
	2 bed (Snrs)	24	41 243	401	41 644	2 031	43 675	41 695	405	42 100	2 053	44 153
	per bed	(108)	29 137	312	29 449	1 435	30 884	29 456	315	29 771	1 451	31 222

SECTION 6 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Rue Goyer & Bedford	Bach	8	14 518	274	14 792	1 942	16 734	14 677	277	14 954	1 963	16 917
	1 bed	12	21 569	274	21 843	2 885	24 728	21 805	277	22 082	2 917	24 999
	2 bed	60	30 280	274	30 554	4 051	34 605	30 612	277	30 889	4 095	34 984
	3 bed	16	37 746	274	38 020	5 049	43 069	38 160	277	38 437	5 104	43 541
	per bed	(188)	14 871	140	15 011	1 989	17 000	15 034	142	15 176	2 011	17 187
12004 Rue Ontario Est.	2 bed Hcap	1	30 790	544	31 334	2 749	34 083	30 958	547	31 505	2 764	34 269
	2 bed	12	27 390	544	27 934	2 749	30 683	27 539	547	28 086	2 764	30 850
	3 bed	3	30 772	544	31 316	3 088	34 404	30 940	547	31 487	3 105	34 592
	per bed	(35)	12 908	249	13 157	1 286	14 443	12 978	250	13 228	1 293	14 521

SECTION 6 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
1956 Lionel Groulx	3 bed	1	149.0	-	-	-	-	-	149.0	40.0	189.0
	per bed	(3)	49.7	-	-	-	-	-	49.7	13.3	63.0
614 Des Seigneurs	3 bed	1	149.0	-	-	-	-	-	149.0	40.0	189.0
	per bed	(3)	49.7	-	-	-	-	-	49.7	13.3	63.0
595 Chatham	3 bed	1	149.0	-	-	-	-	-	149.0	40.0	189.0
	per bed	(3)	49.7	-	-	-	-	-	49.7	13.3	63.0
1700 Louis Joseph Gauthier	3 bed	1	145.0	-	-	-	-	-	145.0	38.0	183.0
	per bed	(3)	48.3	-	-	-	-	-	48.3	12.7	61.0
Maison Prevert	1 bed	18	59.0	-	1.7	-	-	2.7	63.4	9.4	72.8
	2 bed	3	74.0	-	2.1	-	-	3.4	79.5	11.9	91.4
	per bed	(24)	53.5	-	1.5	-	-	2.5	57.5	8.5	66.0
La Fleuralie	1 bed Snrs	60	64.5	-	0.8	2.7	-	0.6	68.6	4.8	73.4
	2 bed Snrs	24	74.0	-	0.9	3.1	-	0.7	78.7	5.5	84.2
	per bed	(108)	52.3	-	0.7	2.2	-	0.5	55.7	3.7	59.4

SECTION 6 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Rue Goye & Bedford	Bach	8	35.0	-	-	-	-	3.5	38.5	4.7	43.2
	1 bed	12	52.0	-	-	-	-	5.3	57.3	6.8	64.1
	2 bed	60	73.0	-	-	-	-	7.4	80.4	9.7	90.1
	3 bed	16	91.0	-	-	-	-	9.2	100.2	12.0	112.2
	per bed	(188)	35.9	-	-	-	-	3.6	39.5	4.7	44.2
12004 Rue Ontario Est	2 bed Hcap	1	81.0	-	-	-	-	5.1	86.1	10.4	96.5
	2 bed	12	81.0	-	-	-	-	5.1	86.1	10.4	96.5
	3 bed	3	91.0	-	-	-	-	5.8	96.8	11.6	108.4
	per bed	(35)	37.9	-	-	-	-	2.4	40.3	4.8	45.1

6. Montreal Timber Framed Row Comparisons - January 1984 $ Base

Element	56/1 Projects				Section 6 Projects				Averages	
	Co-op Haitienne	Co-op La Tannerie	Co-op St. Sulpice	Co-op Les Bordages	1956 Lionel Groulx	614 Des Seigneurs	595 Chatham	1700 L.J. Gauthier	56/1	6
No. of Units	46	38	31	26	1	1	1	1	35	1
No. of Persons Housed	143	114	93	73	3	3	3	3	106	3
No. of Persons per Unit (Av.)	3.0	3.0	3.0	2.8	3.0	3.0	3.0	3.0	3.0	3.0
Gross Built Area (G.B.A.)	7,148 m^2	5,282 m^2	5,768 m^2	3,644 m^2	189 m^2	189 m^2	189 m^2	183 m^2	5,461 m^2	187 m^2
G.B.A. Excl. Indoor Parking	7,148 m^2	5,282 m^2	5,768 m^2	3,644 m^2	167 m^2	167 m^2	167 m^2	161 m^2	5,461 m^2	166 m^2
G.B.A. (Av.)Per Unit Excl. Parking	155.4	139.0	186.1	140.2	167.0	167.0	167.0	161.0	156.0	166.0
G.B.A. Per Person Excl. Park.	50.0	46.3	62.0	49.9	55.7	35.7	55.7	53.7	51.5	55.3
Relationship; Areas Per Person	1.08	1.0	1.34	1.08	1.20	1.20	1.20	1.16	1.0	1.07
G.B.A. Excluding Parking; 3 Bed Unit	152.4	139.0	186.1	126.1	167.0	167.0	167.0	161.0	150.9	165.5
Cost per 3 Bed Unit Including Land	60,112.00	60,814.00	57,158.00	45,965.00	59,913.00	59,913.00	59,913.00	87,804.00	56,012.00	66,886.00
Cost per 3 Bed Unit Excluding Land	54,999.00	53,758.00	49,386.00	43,082.00	56,272.00	56,272.00	56,272.00	74,850.00	50,306.00	60,917.00
Relationship - Incl. Land	1.31	1.32	1.24	1.0	1.30	1.30	1.30	1.91	1.0	1.19
Relationship - Excl. Land	1.28	1.25	1.15	1.0	1.31	1.31	1.31	1.74	1.0	1.21
Cost/m^2 Including Land	393.91	437.51	307.19	363.10	317.00	317.00	317.00	479.80	375.43	337.70
Cost/m^2 Excluding Land	360.67	386.75	265.42	340.20	297.73	297.73	297.73	409.02	338.26	325.55
Cost/m^2 Excl.land & Parking	360.67	386.75	265.75	340.20	319.11	319.11	319.11	435.22	338.26	348.14
Relationship - Incl. Land	1.28	1.42	1.0	1.18	1.03	1.03	1.03	1.56	1.0	0.95
Relationship - Excl. Land	1.36	1.46	1.0	1.28	1.12	1.12	1.12	1.54	1.0	0.96
Relationship - Excl. Land and Parking	1.36	1.46	1.0	1.28	1.20	1.20	1.20	1.64	1.0	1.03
Cost/Bed Excluding Land	18,028.00	17,919.00	16,462.00	16,982.00	18,757.00	18,757.00	18,757.00	24,950.00	17,348.00	20,305.00
Relationship	1.10	1.09	1.0	1.03	1.14	1.14	1.14	1.52	1.0	1.17
Procurement	Trad	Trad	Trad	Trad	Developer	Developer	Developer	Developer	-	-

6, Montreal - Timber Framed Row - Elemental Comparison January 1984 $

Element	56/1 Project				Section 6 Projects				Averages	
	Co-op Haitienne	Co-op La Tannerie	Co-op St. Sulpice	Co-op Les Bordages	1956 Lionel Groulx	614 Des Seigneurs	595 Chatham	1700 L. J. Gauthier	56/1	6
Basement & Foundation	49.76	39.87	18.78	30.76	27.49	27.49	27.49	32.23	34.79	28.68
Structural Framing & Sheathing	48.83	63.36	49.34	55.27	54.45	54.45	54.45	63.87	54.20	56.81
Exterior Finish	78.48	90.30	39.41	81.45	83.01	83.01	83.01	97.38	72.41	86.60
Interior Doors	9.52	8.96	7.63	7.49	5.35	5.35	5.35	6.29	8.40	5.59
Vertical Movement	8.04	3.81	10.12	5.49	4.01	4.02	4.02	4.72	6.87	4.20
Interior Finishes	32.32	39.22	32.86	37.60	32.65	32.65	32.65	38.28	35.38	34.06
Fittings & Equipment	11.40	19.71	12.82	16.48	12.57	12.57	12.57	14.73	15.10	13.11
Mechanical	40.85	26.19	19.93	27.89	18.05	18.05	18.05	24.75	27.47	19.72
Electrical	17.49	27.04	14.91	15.77	10.77	10.77	10.77	14.32	17.55	11.65
Site Development	10.49	15.93	6.66	11.38	21.40	21.40	21.40	57.89	11.11	30.52
Overheads and Profit	23.11	22.93	24.95	19.18	25.08	25.08	25.08	52.16	22.54	31.85
Sub-Total	330.29	352.32	236.91	303.76	294.84	294.84	294.84	406.62	305.82	322.79
Soft Costs	30.38	34.43	28.51	36.44	2.89	2.89	2.89	2.40	32.44	2.76
Sub-Total	360.67	386.75	265.42	340.20	297.73	297.73	297.73	409.02	338.26	325.55
Land	33.24	50.76	41.77	22.90	19.27	19.27	19.27	70.78	37.17	32.15
Total	393.91	437.51	307.19	363.10	317.00	317.00	317.00	479.80	375.43	357.70
Gross Area m^2	7,148 m^2	5,282 m^2	5,768 m^2	3,644 m^2	189 m^2	189 m^2	189 m^2	183 m^2	5,460 m^2	188 m^2
No. of Units	46	38	31	26	1	1	1	1	35	1
Garage Within Building	-	-	-	-	22	22	22	22	-	-
Cost/m^2 Excl. Garage Space & Land	360.67	386.75	265.42	340.20	319.11	319.11	319.11	435.22	338.26	348.14
Relationship Cost/m^2	1.36	1.46	1.0	1.28	1.20	1.20	1.20	1.64	1.0	1.03
Relationship 3 Bed Unit Excluding Land	1.28	1.25	1.15	1.0	1.31	1.31	1.31	1.74	-	-
Cost/Bed Excluding Land	18,028.00	17,919.00	16,462.00	16,982.00	18,757.00	18,757.00	18,757.00	24,950.00	17,348.00	20,305.00
Procurement	Trad	Trad	Trad	Trad	Developer	Developer	Developer	Developer	-	-

6. Montreal - Timber Framed Apartment - Comparison - January 1984 $ Base

	56/1 Project		Section 6			Averages	
Factor	Co-op Mercier	Co-op Feu Vert	Maison Prevert	Goyer Et Bedford	12004 Rue Ontario Est.	56/1	6
No. of Units	14	18	21	96	16	16	44
No. of Persons Housed	28	50	24	188	35	39	82
No. of Persons per Unit (Av.)	2.0	2.8	1.1	2.0	2.2	2.4	1.8
Gross Built Area (G.B.A.)	1,436 m^2	2,514 m^2	1,585 m^2	8,312 m^2	1,580 m^2	1,975 m^2	3,826 m^2
G.B.A. Excl. Indoor Parking	1,436 m^2	2,514 m^2	1,585 m^2	8,312 m^2	1,580 m^2	1,975 m^2	3,826 m^2
G.B.A. (Av.)Per Unit Excl. Parking	102.6	139.7	75.5	86.6	98.8	123.4	87.0
G.B.A. Per Person Excl. Park.	51.3	50.3	66.0	44.2	45.1	50.6	46.7
Relationship; Areas Per Person	1.02	1.0	1.3	1.88	0.90	1.0	0.92
G.B.A. Excluding Parking; 2 Bed Unit	102.5	115.5	91.4	90.1	96.5	109.0	92.7
Cost per 2 Bed Unit Including Land	44,291.00	44,924.00	31,557.00	34,98[illegible].00	30,850.00	44,608.00	32,464.00
Cost per 2 Bed Unit Excluding Land	41,218.00	38,658.00	26,580.00	30,889.00	28,086.00	39,938.00	28,518.00
Relationship - Incl. Land	1.0	1.01	0.71	0.79	0.70	1.0	0.73
Relationship - Excl. Land	1.07	1.0	0.69	0.80	0.73	1.0	0.71
Cost/m^2 Including Land	435.80	388.79	365.84	388.72	321.68	412.30	358.75
Cost/m^2 Excluding Land	405.84	334.53	311.36	343.23	293.04	370.19	315.88
Cost/m^2 Excl.land & Parking	405.84	334.53	311.36	343.23	293.04	370.19	315.88
Relationship - Incl. Land	1.21	1.0	0.94	1.0	0.83	1.0	0.87
Relationship - Excl. Land	1.21	1.0	0.93	1.03	0.88	1.0	0.85
Relationship - Excl. Land and Parking	1.21	1.0	0.93	1.03	0.88	1.0	0.85
Cost/Bed Excluding Land	20,813.00	16,819.00	19,590.00	15,176.00	13,228.00	18,816.00	15,998.00
Relationship	1.24	1.0	1.16	0.90	0.79	1.0	0.85
Procurement	Trad	Trad	Developer	Developer	Developer		

6. Montreal - Timber Framed Apartment - Elemental Comparison - January 1984 $

	56/1 Project		Section 6				Averages	
Element	Co-op Mercier	Snrs. Quatre Soleils	Co-op Feu-Vert	Maison Prevert	Coyeret Bedford	12004 Rue Ontario Est.	56/1 Family	6
Basement & Foundation	38.81	-	37.23	33.77	29.35	25.05	38.02	29.39
Structural Framing & Sheathing	53.11	-	51.19	46.43	47.52	39.15	52.15	44.37
Exterior Finish	71.13	-	62.59	36.77	48.96	50.98	66.86	52.24
Interior Doors	6.77	-	7.75	7.03	10.93	9.38	7.26	9.11
Vertical Movement	14.09	-	3.95	5.80	2.14	7.63	9.02	5.19
Interior Finishes	41.22	-	47.19	42.81	59.34	32.21	44.21	44.79
Fittings & Equipment	23.63	-	10.67	16.09	17.51	20.58	17.15	18.06
Mechanical	39.79	-	23.57	21.38	31.60	18.45	31.68	23.81
Electrical	36.32	-	18.63	16.90	26.76	21.21	27.48	21.62
Site Development	2.68	-	6.76	6.12	1.36	10.82	4.72	6.10
Overheads and Profit	36.61	-	32.12	20.53	25.55	22.90	34.36	22.99
Sub-Total	364.16	-	301.65	273.63	301.02	258.36	332.91	277.67
Soft Costs	41.68	-	32.88	37.73	42.21	34.68	37.28	38.21
Sub-Total	405.84	-	334.53	311.36	343.23	293.04	370.19	315.88
Land	29.96	-	54.26	54.48	45.49	28.64	42.11	42.87
Total	435.80	-	388.79	365.84	388.72	321.68	412.30	358.75
Gross Area m^2	1,436 m^2	-	2,514 m^2	1,585 m^2	8,312 m^2	1,580 m^2	1,975 m^2	3,826 m^2
No. of Units	14	-	18	21	96	16	16	44
Garage within Building	-	-	-	-	-	-	-	-
Cost/m^2 including Garage Space and Land	405.84	-	334.53	311.36	343.23	293.04	370.19	315.88
Relationship Cost/m^2	1.21	-	1.0	0.93	1.03	0.88	1.0	0.85
Relationship 3 Bed excl.land	1.07	-	1.0	0.69	0.80	0.73	1.0	0.71
Cost/Bed excluding land	20,813.00	-	16,819.00	19,590.00	15,176.00	13,228.00	18,816.00	15,998.00
Procurement	Trad		Trad	Developer	Developer	Developer	-	-

6. Montreal - Concrete Framed Snrs. Apartments - Comparisons - January 1984 $ Base

Factor	56/1 Projects: Quatre Soleils	56/1 Projects: Les Retrouvailles	56/1 Projects: Residence Ukrainienne	Section 6: La Fleuraie	Averages: 56/1	Averages: 6
No. of Units	21	117	83	84	74	84
No. of Persons Housed	29	218	91	108	113	108
No. of Persons Per Unit (Av.)	1.4	1.9	1.1	1.3	1.5	1.3
Gross Built Area (G.B.A.)	1,282 m^2	11,027 m^2	7,086 m^2	6,608 m^2	6,465 m^2	6,608 m^2
G.B.A. Excluding Indoor Parking	1,282 m^2	9,837 m^2	7,086 m^2	6,422 m^2	6,068 m^2	6,422 m^2
G.B.A. (Av.) Per Unit Excluding Parking	61.1	84.1	85.4	76.5	82.0	76.5
G.B.A. Per Person Excluding Parking	44.2	45.1	77.9	59.5	55.7	59.5
Relationship; Areas per person	1.0	1.02	1.8	1.4	1.0	1.10
G.B.A. Excluding parking 1 bed unit	56.6	71.8	82.9	73.4	70.4	73.4
G.B.A. Excluding parking 2 bed unit	69.1	99.1	117.9	84.2	95.4	84.2
Cost per 1 Bed Unit Incl. Land	44,852.00	41,249.00	44,233.00	38,538.00	43,445.00	38,538.00
Cost per 1 Bed Unit Excl. Land	44,496.00	39,392.00	42,296.00	36,748.00	42,050.00	36,748.00
Relationship - Incl. land	1.09	1.0	1.07	0.93	1.0	0.89
Relationship - Excl. land	1.13	1.0	1.07	0.93	1.0	0.88
Cost/m^2 Incl. Land	803.82	566.83	535.50	510.29	635.38	510.29
Cost/m^2 Excl. Land	797.43	540.97	511.80	486.58	616.73	486.58
Cost/m^2 Excl. Land and Parking	797.43	583.84	511.80	495.37	631.02	495.37
Relationship Incl. Land	1.50	1.06	1.0	0.95	1.0	0.80
Relationship Excl. Land	1.55	1.06	1.0	0.97	1.0	0.79
Relationship Excl. Land & Parking	1.55	1.14	1.0	0.97	1.0	0.79
Cost/bed Excl. Land	35,252.00	27,363.00	39,852.00	29,711.00	34,156.00	29,711.00
Relationship	1.3	1.0	1.5	1.09	1.0	0.87
Procurement	Trad	Trad	Trad	Developer	-	-

6. Montreal Concrete Framed Seniors Apartments - Elemental Comparison January 1984 $

Element	Snrs Quatre Soleils 56/1	Snrs Les Retrouvailles 56/1	Snrs Residence Ukrainienne 56/1	Snrs La Fleuralie 6	Averages 56/1 Snrs	Averages 6 Snrs
Substructure	48.99	17.89	40.59	36.92	35.82	36.92
Structure	127.48	106.93	88.54	102.17	107.65	102.17
Exterior Cladding	114.38	64.54	94.59	56.30	91.17	56.30
Interior Partitions	58.47	45.28	40.74	39.17	48.16	39.17
Vertical Movement	9.56	14.90	19.63	29.30	14.70	29.30
Interior Finishes	42.94	46.49	25.79	59.28	38.41	59.28
Fittings & Equipment	58.72	15.94	17.01	18.58	30.56	18.58
Electrical	71.01	43.02	39.54	33.23	51.19	33.23
Mechanical	56.84	38.92	46.61	33.27	47.46	33.27
Site Development	23.50	11.20	4.40	5.36	13.03	5.36
Overheads & Profit	47.88	72.92	29.02	38.42	49.94	38.42
Sub-total	659.77	478.03	446.46	452.00	528.09	452.00
Soft Costs	137.66	62.94	65.34	34.58	88.64	34.58
Sub-total	797.43	540.97	511.80	486.58	616.73	486.58
Land	6.39	25.86	23.70	23.71	18.65	23.71
Total	803.82	566.83	535.50	510.29	635.38	510.29

6. Montreal Concrete Framed Seniors Apartments - Elemental Comparison January 1984 $

Element	Snrs Quatre Soleils 56/1	Snrs Les Retrouvailles 56/1	Snrs Residence Ukrainienne 56/1	Snrs La Fleuralie 6	Averages 56/1 Snrs	Averages 6 Snrs
Gross Area m²	1 282	11 027	7 086	6 608	6 465	6 608
No. of Units	21	117	83	108	74	108
Garage within Building m²	-	1 190	-	186	397	186
Cost/m² Excluding Garage and Land	797.43	583.84	511.80	495.37	631.02	495.37
Relationship cost/m²	1.56	1.14	1.0	0.97	1.0	0.79
Relationship 1 bed unit excluding land	1.13	1.0	1.07	0.93	1.0	0.87
Relationship 2 bed unit excluding land	1.02	1.0	1.12	0.79	1.0	0.75
Cost/bed excluding land	35 252	27 363	39 852	29 771	34 156	29 771
Procurement	Trad.	Trad.	Trad.	Developer	-	-
Floors above grade	3	6	4	12	-	-

TORONTO

SECTION 56/1 - PROJECT SAMPLE

C.M.H.C. File	Project	C.M.H.C. Category	Design	Construction	No. of Units	No. of Beds	Area per bed m² Living	Bsmts	Total	Construction Start	Index
37.344.330	Kenfinch Co-op Housing Inc. Finch Avenue & Kennedy Road	Co-op	2 Storey Row; Bsmt	Wood Frame: metal siding	86	320	43.7	5.7	49.4	Nov '82	237.0
36.725.005	Riverdale Co-op, 1359 - 69 Queen Street East	Co-op	3 Storey Row; Bsmt	Wood frame; masonry	36	73	44.7	15.5	60.2	Sept '82	237.0
37.352.333	William Lyon MacKenzie Co-op Bathurst Street, North of Steeles Avenue	Co-op	2 & 3 Storey; bsmt	Wood frame; masonry; siding	152	461	44.5	5.2	49.7	July '83	233.8
36.712.917	Innisfree Housing Co-op (West) Galloway Road between Lawrence & Kingston	Co-op	Row & hi-rise	Wood frame; concrete	135	273	48.5	7.2	55.7	June '82	237.0
36.712.941	Stanchester Charitable Foundation, Oxford Street/ Weston Road	Private Non-Profit (Snrs) (part)	10 Storey hi-rise	Concrete; masonry	174	266	58.4	1.0	59.4	March '81	207.0
36.707.511	Winona Housing Co-op 1463 Eglington Ave West	Co-op (Snrs)	10 Storey hi-rise	Concrete; masonry	99	129	56.5	1.0	57.5	Oct '82	237.0
36.716.926	Constance Hamilton Co-op N/S Lambert Lodge Ave	Co-op	3 Storey Row; bsmt	Masonry	31	60	55.8	18.7	74.5	Feb '82	237.0
36.725.000	Toronto Lithuanian Snr Citizens, Bloor Street W. and Keele Street	Private Non-profit (Snrs)	9 Storey hi-rise	Concrete; masonry	115	122	71.4	5.7	77.1	Sept '82	237.0
37.386.09	Comfort Living Housing Co-op, 2719 - 2723 Islington Ave	Co-op	9 Storey hi-rise	Concrete; masonry	120	283	48.3	-	48.3	Mar '83	235.0
36.717.081	B'Nai Brith, 4266 Bathurst Street	Private Non-Profit	9 Storey hi-rise	Concrete; masonry	130	147			60.7		

SECTION 56/1 - PROJECT SCHEDULE OF ACCOMMODATION

Total	Project	Section of N.H.A.	Senior Citizens			Handicapped				Other			
			Batch	1 Bed	2 Bed	1 Bed	2 Bed	3 Bed	4 Bed	1 Bed	2 Bed	3 Bed	4 Bed
86	Kenfinch	Co-op	-	-	-	-	-	-	4	-	-	24	58
36	Riverdale	Co-op	-	-	-	-	2	-	-	9	16	8	1
152	W. Lyon MacKenzie	Co-op	-	-	-	-	-	3	-	-	29	86	34
135	Innisfree West	Co-op	-	-	-	5	5	-	-	26	48	-	- (HR)
										3	15	29	4 (LR)
174	Weston Road & Oxford	Private Non-profit	-	89	4	3	10	-	-	-	58	10	-
99	Winona	Co-op	-	57	29	12	-	-	-	-	1	-	-
31	Constance Hamilton	Co-op	-	-	-	-	-	-	-	10	16	4	1 (6 bed hostel)
115	Toronto Lithuanian	Private Non-profit	8	94	6	6	-	-	-	-	1	-	-
120	Comfort Living	Co-op	-	-	-	3	2	1	-	7	55	52	-
130	B'Nai Brith	Private Non-profit	-	111	16	2	-	-	-	-	1	-	-

Average no. of units (10 projects) (107)

Section 56/1 - PROJECT COST SUMMARY

Project	Project Cost Actual					Project Cost To Jan '84 Base			
	Land	Soft	Construction	Total	Index	Land	Soft	Construction	Total
Kenfinch	1 387 000	682 420	4 271 200	6 340 620	234.7 / 237.0	1 373 540	675 797	4 229 749	6 279 086
Riverdale	398 427	347 827	1 584 389	2 330 643	234.7 / 237.0	394 560	344 451	1 569 013	2 308 024
W. Lyon MacKenzie	2 775 600	723 540	7 929 650	11 428 790	234.7 / 233.8	2 786 284	726 325	7 960 174	11 471 783
Innisfree West	1 497 774	1 617 572	5 681 123	8 796 469	234.7 / 237.0	1 483 239	1 601 874	5 625 989	8 711 102
Weston Road & Oxford	1 392 000	1 669 600	6 836 650	9 898 250	234.7 / 207.0	1 578 272	1 893 020	7 751 506	11 222 798
Winona	833 541	1 110 313	3 505 495	5 449 349	234.7 / 237.0	825 452	1 099 538	3 471 475	5 396 465
Constance Hamilton	356 872	343 966	1 332 532	2 033 370	234.7 / 237.0	353 409	340 628	1 319 600	2 013 637
Toronto Lithuanian	653 322	1 067 441	4 425 232	6 145 995	234.7 / 237.0	646 982	1 057 082	4 382 286	6 086 350
Comfort Living	1 143 000	1 531 650	5 703 520	8 378 170	234.7 / 235.0	1 141 541	1 529 695	5 696 239	8 367 475
B'Nai Brith									

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Kenfinch	4 bed Hcap	4	49 298	2 942	52 240	13 230	65 470	48 820	2 913	51 733	13 102	64 835
	3 bed	24	51 631	2 942	54 573	15 295	69 868	51 130	2 913	54 043	15 147	69 190
	4 bed	58	56 281	2 942	59 223	16 672	75 895	55 735	2 913	58 648	16 510	75 158
	per bed	(320)	14 689	791	15 480	4 334	19 814	14 547	783	15 330	4 292	19 622
Riverdale	2 bed Hcap	2	36 347	550	36 897	6 043	42 940	35 994	545	36 539	5 984	42 523
	1 bed	9	30 604	550	31 154	5 590	36 744	30 307	545	30 852	5 536	36 388
	2 bed	16	58 366	550	58 916	12 479	71 395	57 800	545	58 345	12 358	70 703
	3 bed	8	69 880	550	70 430	15 452	85 882	69 202	545	69 747	15 302	85 049
	4 bed	1	71 387	550	71 937	12 761	84 698	70 694	545	71 239	12 637	83 876
	per bed	(73)	26 198	271	26 469	5 458	31 927	25 944	268	26 212	5 405	31 617
W. Lyon MacKenzie	3 bed Hcap	3	74 590	3 902	78 492	24 479	102 971	74 877	3 917	78 794	24 573	103 367
	2 bed	29	39 576	3 902	43 478	13 646	57 124	39 728	3 917	43 634	13 699	57 344
	3 bed	86	50 999	3 902	54 901	17 586	72 487	51 195	3 917	55 112	17 654	72 766
	4 bed	34	67 727	3 902	71 629	23 354	94 983	67 988	3 917	71 905	23 444	95 349
	per bed	(461)	17 484	1 286	18 770	6 021	24 791	17 551	1 291	18 842	6 044	24 886

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Innisfree West	1 bed Hcap	5	41 418	6 114	47 532	6 547	54 079	41 016	6 055	47 071	6 484	53 555
	2 bed Hcap	5	51 391	6 114	57 505	8 118	65 623	50 892	6 055	56 947	8 039	64 986
	1 bed	29	36 820	6 114	42 934	6 877	49 811	36 463	6 055	42 518	6 810	49 328
	2 bed	63	45 937	6 114	52 051	9 443	61 494	45 491	6 055	51 546	9 351	60 897
	3 bed	29	60 962	6 114	67 076	18 759	85 835	60 370	6 055	66 425	18 577	85 002
	4 bed	4	69 903	6 114	76 017	21 509	97 526	69 225	6 055	75 280	21 300	96 580
	per bed	(273)	23 712	3 023	26 735	5 487	32 222	23 482	2 994	26 476	5 434	31 910
Weston Road & Oxford	1 bed Snrs	89	30 122	9 998	40 120	6 257	46 377	34 153	11 336	45 489	7 094	52 583
	2 bed Snrs	4	46 143	9 998	56 141	9 583	65 724	52 318	11 336	63 654	10 685	74 519
	1 bed Hcap	3	40 907	9 998	50 905	6 845	57 750	46 381	11 336	57 717	7 761	65 478
	2 bed Hcap	10	53 523	9 998	63 521	10 268	73 789	60 685	11 336	72 021	11 641	83 663
	2 bed	58	46 142	9 998	56 140	9 583	65 723	52 317	11 336	63 653	10 865	74 518
	3 bed	10	56 689	9 998	66 687	11 774	78 461	64 275	11 336	75 611	13 350	88 961
	per bed	(236)	28 672	7 372	36 044	5 898	41 942	32 509	8 359	40 868	6 687	47 555

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Winona	1 bed Snrs	57	38 015	1 530	39 545	7 156	46 701	37 646	1 515	39 161	7 087	46 248
	2 bed Snrs	29	54 373	1 530	55 903	10 234	66 137	53 845	1 515	55 360	10 135	65 495
	1 bed Hcap	12	49 746	1 530	51 276	8 799	60 075	49 263	1 515	50 778	8 714	59 492
	2 bed	1	123 707	1 530	125 237	23 285	148 522	122 506	1 515	124 021	23 059	147 080
	per bed	(127)	35 152	1 193	36 345	6 563	42 908	34 811	1 181	35 992	6 499	42 491
Constance Hamilton	1 bed	10	26 516	299	26 815	5 675	32 490	26 259	296	26 555	5 620	32 175
	2 bed	16	67 268	299	67 567	14 399	81 966	66 615	296	66 911	14 259	81 170
	3 bed	4	58 816	299	59 115	12 590	71 705	58 245	296	58 541	12 468	71 009
	6 bed Hostel	1	90 519	299	90 818	19 376	110 194	89 641	296	89 937	19 188	109 125
	per bed	(60)	27 788	154	27 943	5 948	33 890	27 518	153	27 671	5 890	33 561
Toronto Lithuanian	Bach Snrs	8	29 047	95	29 142	3 712	32 854	28 765	94	28 859	3 676	32 535
	1 bed Snrs	94	43 994	95	44 089	5 622	49 711	43 567	94	43 661	5 567	49 228
	2 bed Snrs	6	65 992	95	66 087	8 432	74 519	65 352	94	65 446	8 350	73 796
	1 bed Hcap	6	45 546	95	45 641	5 622	51 263	45 104	94	45 198	5 567	50 765
	2 bed	1	85 101	95	85 196	10 874	96 070	84 275	94	84 369	10 769	95 138
	per bed	(122)	41 985	89	42 074	5 355	47 429	41 578	88	41 666	5 303	46 969

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Comfort Living	1 bed Hcap	3	41 661	6 823	48 484	7 037	55 521	41 608	6 814	48 422	7 028	55 450
	2 bed Hcap	2	44 961	6 823	51 764	7 592	59 356	44 884	6 814	51 698	7 582	59 280
	3 bed Hcap	1	63 535	6 823	70 358	10 733	81 091	63 454	6 814	70 268	10 719	80 987
	1 bed	7	37 604	6 823	44 427	6 714	51 141	37 556	6 814	44 370	6 705	51 075
	2 bed	55	43 124	6 823	49 947	7 699	57 646	43 069	6 814	49 883	7 689	57 572
	3 bed	52	o/ 374	6 823	74 187	12 028	86 215	67 278	6 814	74 092	12 013	86 105
	per bed	(156)	41 131	5 248	46 379	7 327	53 706	41 079	5 241	46 320	7 318	53 638
B'Nai Brith	1 bed Snrs	111										
	2 bed Snrs	16										
	1 bed Hcap	2										
	2 bed	1										
	per bed	(147)										

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Commercial	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Kenfinch	4 bed Hcap	4	117.8	-	-	-	-	0.3	-	118.1	32.6	150.7
	3 bed	24	136.2	-	-	-	-	0.4	-	136.6	37.6	174.2
	4 bed	58	148.4	-	-	-	-	0.4	-	148.8	41.0	189.9
	per bed	(320)	38.6	-	-	-	-	0.1	-	38.7	10.7	49.4
Riverdale	2 bed Hcap	2	60.0	-	-	2.0		-	-	60.2	4.7	64.9
	1 bed	9	55.5	-	-	1.8		-	-	57.3	4.5	61.8
	2 bed	16	123.9	-	-	4.0		-	-	127.9	10.0	137.9
	3 bed	8	153.4	-	-	5.0		-	-	158.4	12.4	170.8
	4 bed	1	126.7	-	-	4.1		-	-	130.8	10.2	141.0
	per bed	(73)	54.2	-	-	1.8		-	-	56.0	4.2	60.2
W. Lyon MacKenzie	3 bed Hcap	3	174.0	-	-	-	-	2.2	-	176.2	25.7	201.9
	2 bed	29	97.0	-	-	-	-	1.2	-	98.2	14.3	112.5
	3 bed	86	125.0	-	-	-	-	1.6	-	126.6	18.5	145.1
	4 bed	34	166.0	-	-	-	-	2.1	-	168.1	24.5	192.6
	per bed	(461)	42.8	-	-	-	-	0.5	-	43.3	6.4	49.7
Innisfree West	1 bed Hcap	5	50.0	-	0.7	0.5	0.3	0.2	7.5	59.2	7.4	66.6
	2 bed Hcap	5	62.0	-	0.8	0.6	0.4	0.2	9.2	73.2	9.2	82.4
	1 bed	29	52.5	-	0.7	0.5	0.3	0.2	7.8	62.0	7.8	69.8
	2 bed	63	72.1	-	0.9	0.7	0.9	0.2	10.7	85.5	10.7	96.2
	3 bed	29	143.2	-	1.9	1.3	1.7	0.5	21.3	169.9	21.2	191.1
	4 bed	4	164.25	-	2.1	1.3	0.9	0.6	24.5	193.85	24.3	218.15
	per bed	(273)	41.9	-	0.5	0.4	0.2	0.1	6.3	49.4	6.3	55.7

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Commercial	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Weston Road & Oxford	1 bed Snrs	89	45.7	-	1.8	0.9	2.0	0.1	10.9	61.4	9.6	71.0
	2 bed Snrs	4	70.0	-	2.7	1.3	3.1	0.1	16.9	94.1	14.7	108.8
	1 bed Hcap	3	50.00	-	1.9	1.0	2.2	0.1	12.0	67.2	10.5	77.7
	2 bed Hcap	10	75.0	-	2.9	1.4	3.3	0.1	18.1	100.8	15.8	116.6
	2 bed	58	70.0	-	2.7	1.3	3.1	0.1	16.9	94.1	14.7	108.8
	3 bed	10	86.0	-	3.3	1.7	3.8	0.2	20.6	115.6	18.1	133.7
	per bed	(266)	38.2	-	1.5	0.7	1.7	0.1	9.2	51.4	8.0	59.4
Winona	1 bed Snrs	57	41.4	-	1.3	1.0	1.8	0.2	8.8	54.5	8.2	62.7
	2 bed Snrs	29	59.2	-	1.9	1.5	2.6	0.3	12.6	78.1	11.6	89.7
	2 bed Hcap	12	50.9	-	1.6	1.3	2.2	0.3	10.9	67.2	9.9	77.1
	2 bed	1	134.6	-	4.3	3.4	5.8	0.7	28.7	177.5	26.6	204.1
	per bed	(127)	37.9	-	1.2	1.0	1.6	0.2	8.1	50.0	7.5	57.5
Constance Hamilton	1 bed	10	61.4	-	-	0.4	1.0	-	-	62.2	8.8	71.0
	2 bed	16	155.8	-	-	0.9	2.6	-	-	159.3	21.0	180.3
	3 bed	4	136.2	-	-	0.8	2.2	-	-	139.3	18.3	157.6
	6 bed Hotel	1	209.7	-	-	1.2	3.4	-	-	214.3	28.3	242.6
	per bed	(60)	64.4	-	-	0.4	0.4	-	-	65.2	9.3	74.5

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Commercial	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Toronto Lithuanian	Bach Snrs	8	34.2							41.0	12.5	53.5
	1 bed Snrs	94	51.8							62.0	19.0	81.0
	2 bed Snrs	6	77.7							93.1	28.5	121.6
	1 bed Hcap	6	51.8							62.0	19.0	81.0
	2 bed	1	100.2							120.0	36.7	156.7
	per bed	(122)	49.3	-	2.8	2.1	4.7	0.1	inc.	59.1	18.0	77.1
Comfort Living	1 bed Hcap	3	54.0							70.9	12.0	82.9
	2 bed Hcap	2	58.3							76.6	12.9	89.5
	3 bed Hcap	1	82.4							108.2	18.4	126.6
	1 bed	7	51.5							67.6	11.5	79.1
	2 bed	55	59.2							77.6	13.2	90.8
	3 bed	52	92.3							121.2	20.6	141.8
	per bed	(283)	31.0	-	1.3	2.7	-	-	13.6	40.7	7.6	48.3
B'Nai Brith	1 bed Snrs	111										
	2 bed Snrs	16										
	1 bed Hcap	2										
	2 bed	1										
	per bed	(147)	46.8	-	2.7	0.5	4.9	0.3	inc. in units	55.2	5.5	60.7

SECTION 6 - PROJECT SAMPLE

C.M.H.C. File	Project	C.M.H.C. Category	Design	Construction	No. of Units	No. of beds	Area per bed m² Living	Bsmts	Total	Construction Start	Index	Quality/ Complexity
36.725.943	64 Unit Condominium 132 Front Street	MURB Condo	10 storey hi-rise	Concrete; masonry	64	127	134.1	-	134.1	Jan '82	233.9	Good Luxury
36.710.127	179 Unit Apt Building King and Bathurst	Rental CRSP	13 storey hi-rise apt	Concrete; masonry	179	305	61.8	-	61.8	Jan '82	233.9	Good, Semi-Luxury
36.727 162	27 Unit Condominium 33 Dundalk Dr., Scarborough	MURB Condo	25 storey Row; bsmt	Wood frame; masonry	27	82	31.5	19.9	51.4	June '83	233.8	Fair
36.726.081	58 Unit Row Housing Project 45 & 55 Provence Trail	Rental CRSP	4 level; stacked row	Wood frame; masonry	58	104	71.2	-	71.2	June '84	234.7	Fair
38.635.822	109 Unit Apt Building S.W. Corner Wellington & Mill, Aurora	Rental CRSP (part Snrs)	3 & 5 levels; apt.	Wood frame; masonry	109	164	58.0	-	58.0	Mar '84	234.7	Fair
37.358.819	476 Unit Apt Building Bay & Edward Streets	Rental CRSP	26 storey hi-rise apt	Concrete; masonry	476	564	83.2	-	83.2	June '83	233.8	Good Semi-Luxury
36.344.421	382 Unit Apt Building 441 Jarvis Street	MURB Condo	19 storey hi-rise apt	Concrete; masonry	382	725	55.0	-	55.0	May '83	235.0	Good Luxury

SECTION 6 - PROJECT SCHEDULE OF ACCOMMODATION

Total	Project	Section of N.H.A.	Senior Citizens			Handicapped				Other			
			Batch	1 Bed	2 Bed	1 Bed	2 Bed	3 Bed	4 Bed	1 Bed	2 Bed	3 Bed	4 Bed
64	64 Unit Condominium 132 Front Street	MURB Condo	-	-	-	-	-	-	-	1	63	-	-
179	179 Aprt Building, King & Bathurst	Rental CRSP	-	-	-	-	-	-	-	53	126	-	-
27	27 Unit Condominium 33 Dundalk Drive, Scarborough Scarborough	MURB Condo	-	-	-	-	-	-	-	-	-	26	1
58	58 Unit Row Housing 45 & 55 Provence Trail	Rental CRSP	-	-	-	3	-	-	-	17	30	8	-
109	109 Unit Apt. Building S.W. Corner Wellington & Mill, Aurora	Rental CRSP	-	38	-	-	-	-	-	21	45	5	-
476	476 Unit Apt. Building Bay & Edward Streets	Rental CRSP	-	-	-	-	-	-	-	388	88	-	-
382	382 Unit Apt. Building 441 Jarvis Street	MURB Condo	-	-	-	-	-	-	-	39	343	-	-

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SECTION 6 - PROJECT COST SUMMARY

Project	Project Cost Actual Land	Soft	Construction	Total	Index	Project Cost To Jan '84 Base Land	Soft	Construction	Total
64 Unit Condo 132 Front Street	1 359 000	2 773 402	11 093 607	15 226 009	234.7 233.9	1 363 648	2 782 888	11 131 549	15 278 085
196 Unit Apartment Building King & Bathurst	2 292 930	3 096 900	11 547 920	16 937 750	234.7 233.9	2 300 772	3 107 492	11 587 416	16 995 680
27 Unit Condo 33 Dundalk Drive, Scarborough	459 000	169 100	1 173 036	1 801 136	234.7 233.8	460 767	169 751	1 177 551	1 808 069
58 Unit Row Housing Project 45 & 55 Provence Trail, Etobicoke	580 000	326 425	2 051 575	2 958 000	234.7 234.7	580 000	326 425	2 051 575	2 958 000
109 Unit Apartment Building Wellington & Mill, Aurora	970 000	426 516	4 386 000	5 782 516	234.7 234.7	970 000	426 516	4 386 000	5 782 516
476 Unit Apartment Building Bay & Edward Streets	9 520 000	5 499 000	26 288 000	41 307 000	234.7 233.8	9 556 646	5 520 168	26 389 193	41 466 007
382 Unit Apartment Building 441 Jarvis Street	7 640 000	4 911 000	22 834 000	35 385 000	234.7 235.0	7 630 247	4 904 731	22 804 830	35 339 828

SECTION 6 - PROJECT COST PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
132 Front Street	1 bed	1	150 625	39 688	190 313	17 833	208 146	151 140	39 824	190 964	17 894	208 858
	2 bed	63	177 403	39 688	217 091	21 288	238 379	178 010	39 824	217 834	21 361	239 195
	per bed	(127)	89 189	20 000	109 189	10 701	119 890	89 494	20 068	109 562	10 738	120 300
King & Bathurst	1 bed	53	60 035	10 713	70 748	10 816	81 564	60 240	10 750	70 990	10 853	81 843
	2 bed	126	75 758	10 713	86 471	13 648	100 119	76 017	10 750	86 767	13 695	100 462
	per bed	(305)	41 729	6 287	48 016	7 518	55 534	41 872	6 309	48 181	7 544	55 725
33 Dundalk Drive Scarborough	3 bed	26	43 772	5 782	49 554	16 942	66 496	43 941	5 804	49 745	17 007	66 752
	4 bed	1	47 947	5 782	53 729	18 519	72 248	48 132	5 804	53 936	18 590	72 526
	per bed	(82)	14 464	1 904	16 368	5 598	21 966	14 520	1 911	16 431	5 620	22 051
45 & 55 Provence Trail, Etobicoke	1 bed Hcap	3	38 103	5 186	43 289	10 025	53 314	38 103	5 186	43 289	10 025	53 314
	1 bed	17	35 783	5 186	40 969	10 025	50 994	35 783	5 186	40 969	10 025	50 994
	2 bed	30	34 352	5 186	39 538	9 624	49 162	34 352	5 186	39 538	9 624	49 162
	3 bed	8	40 502	5 186	45 688	11 347	57 035	40 502	5 186	45 688	11 347	57 035
	per bed	(104)	19 973	2 892	22 865	5 577	28 442	19 973	2 892	22 865	5 577	28 442
Wellington & Mill Aurora	1 bed Snrs	38	36 315	4 848	41 163	8 219	49 382	36 315	4 848	41 163	8 219	49 382
	1 bed	21	33 125	4 848	37 973	7 506	45 479	33 125	4 848	37 973	7 506	45 479
	2 bed	45	40 175	4 848	45 023	9 094	54 117	40 175	4 848	45 023	9 094	54 117
	3 bed	5	80 230	4 848	85 078	18 172	103 250	80 230	4 848	85 078	18 172	103 250
	per bed	(164)	26 122	3 222	29 344	5 915	35 259	26 122	3 222	29 344	5 915	35 259

SECTION 6 - PROJECT COST PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Bay & Edwards	1 bed	388	59 119	5 857	64 976	19 402	84 378	59 346	5 880	65 226	19 477	84 703
	2 bed	88	68 873	5 857	74 730	22 636	97 366	69 138	5 880	75 018	22 723	97 741
	per bed	(564)	51 417	4 943	56 360	16 879	73 239	51 615	4 962	56 577	16 943	73 520
441 Jarvis Street	1 bed	39	61 400	8 020	69 420	19 022	88 442	61 636	8 051	69 687	19 095	88 782
	2 bed	343	64 976	8 020	72 996	20 111	93 107	65 226	8 051	73 277	20 188	93 465
	per bed	(725)	34 043	4 226	38 269	10 538	48 807	34 000	4 221	38 221	10 525	48 746

SECTION 6 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Commercial	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
132 Front Street	1 bed	1	160.0	-	13.7	8.4		-	16.9	199.0	24.5	223.5
	2 bed	63	191.0	-	16.3	10.0		-	20.2	237.5	29.3	166.8
	per bed	(127)	96.0	-	8.2	5.0		-	10.2	119.4	14.7	134.1
King & Bathurst	1 bed	53	58.8	-	3.6	10.2		-	5.6	78.2	10.7	88.9
	2 bed	126	74.2	-	4.5	12.9		-	7.1	98.7	13.5	112.2
	per bed	(305)	40.9	-	2.5	7.1		-	3.9	54.4	7.4	61.8
33 Dundalk Drive	3 bed	26	136.3	-	-	-	-	-	-	136.3	19.3	155.6
	4 bed	1	149.3	-	-	-	-	-	-	149.3	21.1	170.4
	per bed	(82)	45.0	-	-	-	-	-	-	45.0	6.4	51.4
45 & 55 Provence Trail	1 bed Hcap	3	113.8	-	-	-	-	-	-	113.8	14.1	127.9
	1 bed	17	113.8	-	-	-	-	-	-	113.8	14.1	127.9
	2 bed	30	109.2	-	-	-	-	-	-	109.2	13.6	122.8
	3 bed	8	128.8	-	-	-	-	-	-	128.8	16.0	144.8
	per bed	(104)	63.3	-	-	-	-	-	-	63.3	7.9	71.2
Wellington & Mill Aurora	1 bed Snrs	38	53.0	-	1.2	1.0	3.0	-	10.2	68.4	12.1	80.5
	1 bed	21	48.4	-	1.1	0.9	2.7	-	9.4	62.5	11.0	73.5
	2 bed	45	58.6	-	1.4	1.1	3.3	-	11.3	75.7	13.4	89.1
	3 bed	5	117.2	-	2.7	2.2	6.5	-	22.7	151.3	26.7	178.0
	per bed	(164)	38.2	-	0.9	0.7	2.1	-	7.4	49.3	8.7	58.0

6. TORONTO

SECTION 6 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Commercial	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Bay & Edwards	1 bed	388	72.6	-	1.2	2.5	2.4	-	6.5	85.2	10.4	95.6
	2 bed	88	84.7	-	1.4	3.0	2.7	-	7.7	99.5	12.0	111.5
	per bed	(564)	63.2	-	1.0	2.2	2.1	-	5.7	74.2	9.0	83.2
441 Jarvis Street	1 bed	39	66.0	-	1.0	4.1	3.6	-	12.1	86.8	12.5	99.3
	2 bed	343	69.8	-	1.1	4.4	3.8	-	12.7	91.8	13.2	105.0
	per bed	(725)	36.6	-	0.6	2.3	2.0	-	6.6	48.1	6.9	55.0

6. Toronto Timber Framed Row - Comparisons January 1984 $ Base

Element	56/1 Project				Section 6 Projects		Totals	
	Kenfinch	Riverdale	William Lyon Mac	Constance Hamilton	33 Dundalk Drive	45 & 55 Provence	56/1	6
No. of Units	86	36	152	31	27	58	305	85
No. of Persons Housed	320	73	461	60	82	104	914	186
No. of Persons per Unit (Av.)	3.7	2.0	3.0	1.9	3.0	1.8	3.0	2.2
Gross Built Area (G.B.A.)	15,794 m^2	4,393 m^2	24,032 m^2	4,467 m^2	4,686 m^2	8,399 m^2	48,686 m^2	13,085 m^2
G.B.A. Excl. Indoor Parking	13,924 m^2	4,393 m^2	22,841 m^2	4,467 m^2	4,206 m^2	7,429 m^2	45,625 m^2	11,635 m^2
G.B.A. (Av.)Per Unit Excl. Parking	161.9m^2	1220.0m^2	150.3m^2	144.1m^2	155.8m^2	128.1m^2	149.6m^2	136.9m^2
G.B.A. Per Person Excl. Park.	43.5m^2	60.2m^2	49.5m^2	74.5m^2	51.3m^2	71.4m^2	49.9m^2	62.6m^2
Relationship; Areas Per Person	1.0	1.4	1.1	1.7	1.2	1.6	1.0	1.25
G.B.A. Excluding Parking; 3 Bed Unit	174.2m^2	170.8m^2	145.1m^2	157.6m^2	155.6m^2	144.8m^2	161.9m^2	150.2m^2
Cost per 3 Bed Unit Including Land	69,190.00	85,049.00	72,766.00	71,009.00	66,752.00	57,035.00	74,504.00	61,894.00
Cost per 3 Bed Unit Excluding Land	54,043.00	69,747.00	55,112.00	58,541.00	49,745.00	45,668.00	59,361.00	47,707.00
Relationship - Incl. Land	1.0	1.23	1.05	1.03	0.96	0.82	1.0	0.83
Relationship - Excl. Land	1.0	1.29	1.02	1.08	0.92	0.85	1.0	0.80
Cost/m^2 Including Land	397.57	525.39	477.40	450.78	385.84	352.19	462.79	369.02
Cost/m^2 Excluding Land	310.60	435.57	361.45	371.67	287.52	283.13	369.82	285.33
Cost/m^2 Excl.land & Parking	338.94	435.57	366.84	371.67	290.34	285.77	378.26	288.06
Relationship - Incl. Land	1.0	1.32	1.20	1.13	0.97	0.89	1.0	0.8
Relationship - Excl. Land	1.0	1.40	1.16	1.20	0.93	0.91	1.0	0.77
Relationship - Excl. Land and Parking	1.0	1.29	1.08	1.10	0.86	0.84	1.0	0.76
Cost/Bed Excluding Land	15,330.00	26,212.00	18,842.00	27,611.00	16,431.00	22,865.00	21,999.00	19,648.00
Relationship	1.0	1.71	1.23	1.80	1.07	1.49	1.0	0.89
Procurement	Turnkey	Trad	Turnkey	Trad	Developer	Developer		

6. Toronto Timber Framed Row - Elemental Comparison January 1984 $

Element	56/1 Project			Section 6 Projects			Averages		Timber Framed Apt.	
	Ken Finch	Riverdale	William Lyon M.C.	Constance Hamilton	33 Dundalk Dr.	45 & 55 Provence Tr.	56/1	6	Wellington Mill	Sect. 6
Basement & Foundation	31.35	36.28	55.67	30.10	18.64	14.17	38.35	16.41	53.53	No Section 56/1 Wood Frame Apts.
Structural Framing & Sheathing	31.54	56.94	49.09	40.95	30.00	36.67	44.63	33.34	41.10	
Exterior Finish	60.64	78.05	51.56	54.71	72.83	57.27	61.24	65.05	60.70	
Interior Doors	5.01	7.04	4.76	5.98	5.35	6.43	5.70	5.88	7.08	
Vertical Movement	5.39	4.00	3.17	4.12	5.78	6.91	4.17	6.35	4.83	
Interior Finishes	39.94	41.91	39.87	37.78	42.20	39.41	39.88	40.80	37.82	
Fittings & Equipment	16.18	29.78	15.07	23.83	15.85	19.76	21.22	17.81	21.33	
Mechanical	30.66	32.35	22.67) 33.64)	42.12	22.07	26.19	40.36	24.13	37.64	
Electrical	13.08	16.39	10.46	18.40	10.93	12.74	14.58	11.84	17.87	
Site Development	14.56	13.90	14.03	8.43	9.64	7.14	12.73	8.39	6.30	
Overheads and Profit	19.46	40.51	31.24	29.00	18.00	17.57	30.05	17.78	23.31	
Sub-Total	267.81	357.16	331.23	295.42	251.29	244.26	312.91	247.78	311.51	
Soft Costs	42.79	78.41	30.22	76.25	36.23	38.87	56.91	37.55	104.00	
Sub-Total	310.60	435.57	361.45	371.67	287.52	283.13	369.82	285.33	415.51	
Land	86.97	89.82	115.95	79.12	98.32	69.06	92.97	83.69	83.75	
Total	397.57	525.39	477.40	450.78	385.84	352.19	462.79	369.02	499.26	
Gross Area m^2	15,794 m^2	4,393 m^2	24,032 m^2	4,467 m^2	4,686 m^2	8,399 m^2	12,172 m^2	6,543 m^2	1,582 m^2	
No. of Units	86	36	152	31	27	58	76.3	43	109	
Garage within Building	1,870 m^2	-	1,001 m^2	-	480 m^2	970 m^2	-	725 m^2	2,097 m^2	
Cost/m^2 including Garage Space Land	338.94	435.57	366.84	371.67	290.34	285.77	378.26	288.06	455.94	
Relationship Cost/m^2	1.0	1.29	1.08	1.10	0.86	0.84				
Relationship 3 Bed excl. land	1.0	1.29	1.02	1.08	0.92	0.85				
Relationship 4 Bed excl. land	1.0	1.21	1.23	1.53	0.92	None				
Cost/Bed excluding land	1.0	1.71	1.23	1.80	1.07	1.49				
Procurement	Turnkey	Trad	Turnkey	Trad	Developer	Developer			Developer	

6. Toronto - Concrete Framed Apartments - Comparisons January 1984 $ Base

	56/1 Project						Section 6 Projects			
Element	Innis-free	Weston & Oxford	Comfort Living	Winona (Snrs)	Toronto Lithuanian (Snrs)	BNAI Brith. (Snrs)	132 Front	King & Bathhurst	Bay & Edward	441 Jarvis St.
No. of Units	135	174	120	99	115	130	64	179	476	382
No. of Persons Housed	273	266	283	129	122	147	127	305	564	725
No. of Persons per Unit (Av.)	2.0	1.5	2.4	1.3	1.1	1.1	2.0	1.70	1.2	1.90
Gross Built Area (G.B.A.)	18,335 m^2	23,508 m^2	19,739 m^2	8,182 m^2	10,187 m^2	10,841 m^2	28,281 m^2	25,524 m^2	57,443 m^2	49,085 m^2
G.B.A. Excl. Indoor Parking	15,110 m^2	15,523 m^2	13,409 m^2	7,302 m^2	10,187 m^2	8,891 m^2	19,586 m^2	18,670 m^2	47,088 m^2	39,535 m^2
G.B.A. (Av.)Per Unit Excl. Parking	111.9m^2	89.2m^2	111.7m^2	73.8m^2	88.6m^2	69.1m^2	306.0m^2	104.3m^2	98.9m^2	103.5m^2
G.B.A. Per Person Excl. Park.	55.4m^2	58.4m^2	47.4m^2	56.6m^2	83.5m^2	61.1m^2	154.2m^2	61.2m^2	83.5m^2	54.5m^2
Relationship; Areas Per Person	1.17	1.23	1.0	1.19	1.76	1.29	3.25	1.29	1.76	1.15
G.B.A. Excluding Parking; 2 Bed Unit	96.2m^2	108.8m^2	90.8m^2	89.7m^2	121.6m^2	-	266.8m^2	112.2m^2	111.5m^2	105.0m^2
Cost per 2 Bed Unit Including Land	60,897.00	74,518.00	57,572.00	65,495.00	73,796.00	-	239,195.00	100,462.00	97,741.00	93,465.00
Cost per 2 Bed Unit Excluding Land	51,546.00	63,653.00	49,883.00	55,360.00	65,446.00	-	217,834.00	86,767.00	75,018.00	73,277.00
Relationship - Incl. Land	1.06	1.29	1.0	1.14	1.28	-	4.16	1.75	1.70	1.62
Relationship - Excl. Land	1.03	1.28	1.0	1.11	1.31	-	4.37	1.74	1.50	1.47
Cost/m^2 Including Land	475.11	477.40	423.91	659.55	597.46	-	540.22	665.87	721.86	719.97
Cost/m^2 Excluding Land	394.21	410.27	366.07	558.67	533.95	-	492.01	575.73	555.50	564.52
Cost/m^2 Excl.land & Parking	426.15	494.24	482.46	605.45	542.97	-	665.53	684.03	623.51	623.49
Relationship - Incl. Land	1.12	1.13	1.0	1.56	1.41	-	1.27	1.57	1.70	1.70
Relationship - Excl. Land	1.08	1.12	1.0	1.53	1.46	-	1.34	1.57	1.52	1.54
Relationship - Excl. Land and Parking	1.0	1.16	1.13	1.42	1.27	-	1.56	1.61	1.46	1.46
Cost/Bed Excluding Land	26,476.00	40,868.00	46,320.00	35,992.00	41,666.00	-	109,562.00	48,181.00	56,577.00	38,221.00
Relationship	1.0	1.54	1.75	1.36	1.57	-	4.14	1.82	2.14	1.44
Procurement	Turnkey	Turnkey	Trad	Trad	Trad	Data Incomplete	Developer	Developer	Developer	Developer

6 Toronto - Concrete Framed Apartments - Comparisons January 1984 $ Base (Continued)

Element	56/1 Family	56/1 Seniors	Average 6
No. of Units	143	115	275
No. of Persons Housed	274	133	430
No. of Persons per Unit (Av.)	1.9	1.2	1.6
Gross Built Area (G.B.A.)	20,527 m^2	9,737 m^2	40,083 m^2
G.B.A. Excl. Indoor Parking	14,681 m^2	8,823 m^2	31,220 m^2
G.B.A. (Av.)Per Unit Excl. Parking	102.7 m^2	76.7 m^2	113.5 m^2
G.B.A. Per Person Excl. Park.	53.6 m^2	66.3 m^2	72.6 m^2
Relationship; Areas Per Person	1.0	1.24	1.35
G.B.A. Excluding Parking; 2 Bed Unit	98.6 m^2	105.7 m^2	148.9 m^2
Cost per 2 Bed Unit Including Land	64,329.00	69,646.00	132,716.00
Cost per 2 Bed Unit Excluding Land	55,027.00	60,403.00	113,224.00
Relationship - Incl. Land	1.0	1.08	2.06
Relationship - Excl. Land	1.0	1.10	2.06
Cost/m^2 Including Land	458.81	628.51	661.98
Cost/m^2 Excluding Land	390.18	546.31	546.94
Cost/m^2 Excl.land & Parking	467.62	574.21	649.14
Relationship - Incl. Land	1.0	1.37	1.44
Relationship - Excl. Land	1.0	1.40	1.40
Relationship - Excl. Land and Parking	1.0	1.23	1.39
Cost/Bed Excluding Land	37,888.00	38,829.00	63,135.00
Relationship	1.0	1.03	1.67

6. Toronto Concrete Framed Apartments - Elemental Comparison January 1984 $

Element	56/1 Project						Section 6 Projects			
	Innistree Co-op	Snrs. Weston & Oxford	Snrs. Winona Co-op	Comfort Living Co-op	Snrs. Toronto Uthuanian	Snrs. BNAI Brith	132 Front Street	King & Bathurst	Bay & Edwards	441 Jarvis St.
Substructure	27.93	12.35	17.43	13.46	31.20	14.35	26.96	22.88	17.90	18.11
Structure & Sheathing	66.43	71.28	43.00	62.68	62.26	77.28	95.80	97.88	101.97	102.14
Exterior cladding	36.62	55.90	54.68	48.55	58.73	66.18	79.55	79.41	65.06	74.55
Interior partitions	25.00	40.04	40.44	29.09	37.91	40.17	19.16	34.25	40.34	37.68
Vertical Movement	12.15	10.70	25.84	13.45	17.70	17.13	11.60	10.23	13.96	13.87
Interior Finishes	24.90	28.31	41.21	25.65	40.43	43.50	37.43	40.53	42.37	39.58
Fittings & Equipment	19.66	17.16	42.56	13.91	26.02	28.05	12.77	23.94	24.86	24.21
Electrical	22.68	24.65	40.92	21.60	48.60	33.04	38.20	35.58	31.46	38.25
Mechanical	32.20	35.45	55.14	31.12	6.15	74.05	83.49	70.37	84.27	77.73
Site Development	9.36	5.93	6.90	9.36	12.15	21.75	1.60	4.33	2.36	3.05
Overheads and Profit	29.91	27.97	56.16	19.69	34.03	35.63	34.24	34.58	38.45	35.43
Sub-Total	306.84	329.74	424.28	288.56	430.18	451.13	440.80	453.98	463.00	464.60
Soft Costs	87.37	80.53	134.38	77.51	63.51		110.21	121.75	96.83	99.92
Sub-Total	394.21	410.27	558.66	366.07	493.69		551.01	575.73	559.83	564.52
Land	80.90	67.13	100.89	57.84	103.77		55.88	90.14	166.37	155.45
Total	475.11	477.40	659.55	423.91	597.46		606.89	665.87	726.20	719.97
Gross Area m^2	18,335 m^2	23,508 m^2	8,182 m^2	19,739 m^2	10,187 m^2	10,841 m^2	28,281 m^2	25,524 m^2	57,443 m^2	49,085 m^2
No. of Units	135	174	99	120	115	130	64	179	476	382
Garage within Building	3,225 m^2	7,985 m^2	380 m^2	6,330 m^2	-	1,860 m^2	8,695 m^2	6,854 m^2	10,355 m^2	9,550 m^2
Cost/m^2 including Garage Space Land	426.15	494.24	605.45	482.46	493.69	-	665.53	684.03	623.51	623.49
Relationship Cost/m^2	1.0	1.16	1.42	1.13	1.16	Forms	1.56	1.61	1.46	1.46
Relationship 3 Bed excl.land	1.0	1.24	2.41	0.97	1.64	Not on Files,	4.23	1.68	1.46	1.42
Cost/Bed excluding land	26,476.00	40,868.00	35,992.00	46,320.00	41,666.00	Requested	120,300.00	55,725.00	73,520.00	48,746.00
Procurement	Turnkey	Turnkey	Trad	Trad	Trad	Turnkey	Developer	Developer	Developer	Developer

6. Toronto Concrete Framed Apartments - Elemental Comparison January 1984 $ (Continued)

Element	56/1 Family	Average 56/1 Seniors	6
Substructure	17.91	20.99	21.45
Structure	66.80	60.85	99.45
& Sheathing			
Exterior cladding	47.02	59.86	74.64
Interior partitions	31.38	39.52	32.86
Vertical Movement	12.10	20.22	12.42
Interior Finishes	26.29	41.71	39.98
Fittings & Equipment	16.90	32.21	21.45
Electrical	22.98	40.85	35.87
Mechanical	32.92	63.45	78.97
Site Development	8.22	18.60	2.84
Overheads and Profit	25.86	41.94	35.67
Sub-Total	308.38	435.20	455.60
Soft Costs	81.80	98.95 (2)	107.17
Sub-Total	390.18	534.15	562.77
Land	68.62	102.33 (2)	116.96
Total	458.80	628.51 (2)	679.73
Gross Area m^2	20,527 m^2	9,737 m^2	40,083 m^2
No. of Units	143	115	275
Garage within Building	5,847 m^2	913 m^2	8,864 m^2
Cost/m^2 including Garage Space Land	467.62	549.57 (2)	649.14
Relationship Cost/m^2	1.0	1.18	1.39
Relationship 3 Bed excl.land	1.0	1.87	2.03
Cost/Bed excluding land	37,888.00	38,829.00	63,135.00

* BNAI Brith soft and land costs not available

CALGARY

SECTION 56/1 - PROJECT SAMPLE

C.M.H.C. File	Project	C.M.H.C. Category	Design	Construction	No. of Units	No. of Beds	Area per bed m² Living	Bsmts	Total	Construction Start	Index	Quality/ Complexity
37.878.009	Tuxedo Townhouse Development, 112 - 27th Avenue N. W.	Public Non-profit	Row; 2 + bsmt	Timber inc. bsmts	33	54	27.3	15.7	43.0	May '82		Basic
37.153.780	Abbeydale II Townhouse Development, 35 Abercrove Drive S.E.	Public Non-profit	Row; 2 + bsmt	Timber; concrete bsmt	60	180	33.8	16.7	50.5	Dec '81		Basic
34.877.902	Apartment Building 5807 - 2nd Street S.W.	Public Non-profit	14 storey hi-rise	Concrete masonry	117	156	55.1	-	55.1	May '81		Average Quality
34.877.613	Shalem Society Seniors Residence, 3020 - 51st Street S.W.	Private Non-profit	3 storey No bsmt	Concrete; stucco & stud	50	50	70.1	5.7	75.8	July '80		Basic Snrs
37.844.886	Hari Housing Society Apt Complex, 3818 - 19th Avenue S.W.	Private Non-profit	9 & 3 storey; bsmt pkg	Concrete; metal masonry	108	155	53.8	1.4	55.2	Apr '82		Complex 2 level units

Notes 1) Tuxedo - proposal call by City - Nu-West - price reflects market and Nu-West position land and turnkey proposal

2) Abbeydale II - as above

3) 5807 - 2nd Street S.W. - purchased by City from development partnership; project in trouble.

4) Shalem - design/build; management contract

5) Hari - Society; designed and tendered; complex design

SECTION 56/1 - PROJECT SCHEDULE OF ACCOMMODATION

Project	Section of N.H.A.	Senior Citizens			Handicapped				Other			
		Batch	1 Bed	2 Bed	1 Bed	2 Bed	3 Bed	4 Bed	1 Bed	2 Bed	3 Bed	4 Bed
Tuxedo	Public Non-profit	-	-	-	-	-	-	-	12	21	-	-
Abbeydale II	Public Non-profit	-	-	-	-	-	-	-	-	-	60	-
Apt Building: 5807 - 2nd Street S.W.	Public Non-profit	-	-	-	-	13	-	-	78	26	-	-
Shalem Society	Private Non-profit	-	46	-	4	-	-	-	-	-	-	-
Hari Housing Society	Private Non-profit	-	-	-	6	2	-	-	60	35	5	-

SECTION 56/1 - PROJECT COST SUMMARY

Project	Project Cost Actual Land	Soft	Construction	Total	Index	Project Cost To Jan '84 Base Land	Soft	Construction	Total	Beds
Tuxedo Townhouse Development 112 - 27th Avenue N. W.	560 000	150 000	664 000	1 374 000	249.5 281.0	497 224	133 185	589 566	1 219 975	54
Abbeydale II Townhouse Development 35 Abercrove Drive S.E.	1 241 000	597 000	2 628 000	4 466 000	249.5 292.9	1 057 117	508 540	2 238 600	3 804 257	180
Apartment Building 5807 - 2nd Street S.W.	1 400 000	1 065 000	4 730 000	7 195 000	249.5 255.6	1 366 588	1 039 563	4 617 116	7 023 287	156
Shalem Society Seniors Residence 3020 - 51st Street S.W.	545 651	261 644	1 774 636	2 581 931	249.5 241.1	564 662	270 760	1 836 465	2 671 887	50
Nari Housing Society, Apartment Complex 3818 - 19th Avenue S.W.	977 000	1 248 016	5 317 400	7 542 416	249.5 281.0	867 479	1 108 114	4 721 321	6 696 914	155

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Tuxedo	1 bed	12	19 326	634	19 960	13 646	33 606	17 160	563	17 723	12 116	29 839
	2 bed	21	26 723	634	27 357	18 869	46 226	23 727	563	24 290	16 754	41 044
	per bed	(54)	14 687	387	15 074	10 370	25 444	13 041	343	13 384	9 208	22 592
Abbeydale II	3 bed	60	52 827	923	53 750	20 683	74 433	44 999	787	45 786	17 618	63 404
	per bed	(180)	17 609	308	17 917	6 894	24 811	15 000	262	15 262	5 873	21 135
5807 - 2nd Street Apartment Building	2 bed Hcap	13	64 389	2 513	66 902	15 927	82 829	62 852	2 453	65 305	15 547	80 852
	1 bed	78	38 919	2 513	41 432	10 420	51 852	37 990	2 453	40 443	10 171	50 614
	2 bed	26	54 624	2 513	57 137	14 624	71 761	53 320	2 453	55 773	14 275	70 048
	per bed	(156)	33 930	1 884	35 814	8 974	44 788	33 120	1 839	34 959	8 760	43 719
Shalem Society	1 bed Snrs	46	39 226	755	39 981	10 784	50 765	40 593	781	41 374	11 160	52 534
	2 bed Hcap	4	48 538	755	49 293	12 396	61 688	50 229	781	51 010	12 828	63 838
	per bed	(50)	39 971	755	40 726	10 913	51 639	41 364	781	42 145	11 293	53 438
Hari Housing	1 bed Hcap	6	53 155	5 785	58 940	8 160	67 100	47 196	5 137	52 333	7 245	59 578
	2 bed Hcap	2	67 306	5 785	73 091	10 450	83 541	59 761	5 137	64 898	9 279	74 177
	1 bed	60	48 966	5 785	54 751	8 095	62 846	43 476	5 137	48 613	7 188	55 801
	2 bed	35	62 292	5 785	68 677	10 299	78 376	55 309	5 137	60 446	9 144	69 590
	3 bed	5	73 774	5 785	79 559	12 196	91 755	65 503	5 137	70 640	10 829	81 469
	per bed	(155)	38 327	4 031	42 358	6 303	48 661	34 031	3 579	37 610	5 596	43 206

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Tuxedo	1 bed	12	48.8	-	1.4	-	-	-	50.2	6.4	56.6
	2 bed	21	67.5	-	1.9	-	-	-	69.4	8.9	78.3
	per bed	(54)	37.1	-	1.0	-	-	-	38.1	4.9	43.0
Abbeydale II	3 bed	60	133.3	-	-	-	-	-	133.3	18.3	151.6
	per bed	(180)	44.4	-	-	-	-	-	44.4	6.1	50.5
5807 - 2nd Street S.W. Apt Building	2 bed Hcap	13	69.7	0.9	0.3	-	0.2	7.4	78.5	13.7	92.2
	1 bed	78	45.6	0.6	0.3	-	0.1	4.9	51.5	9.0	60.5
	2 bed	26	64.0	0.9	0.4	-	0.2	6.8	72.3	12.6	84.9
	per bed	(156)	39.3	0.5	0.3	-	0.1	4.2	44.4	7.7	52.1
Shalem Society	1 bed Snrs	46	47.9	1.2	1.0	5.6	0.2	9.5	65.4	9.6	75.0
	1 bed Hcap	4	55.0	1.4	1.2	6.5	0.2	10.0	75.2	10.9	86.1
	per bed	(50)	48.4	1.2	1.0	5.7	0.2	9.6	66.2	9.6	75.8
Hari Housing	1 bed Hcap	6	57.0	0.7	0.8	0.5	0.2	7.4	66.6	8.6	75.2
	2 bed Hcap	2	73.0	1.0	0.8	0.5	0.2	9.4	84.9	11.0	95.9
	1 bed	60	56.6	0.7	0.8	0.5	0.2	7.3	66.1	8.5	74.6
	2 bed	35	71.9	0.9	1.0	0.7	0.2	9.3	84.0	10.8	94.8
	3 bed	5	85.2	1.1	1.1	0.7	0.2	11.0	99.3	12.8	112.1
	per bed	(155)	44.0	0.6	0.6	0.4	0.1	5.7	51.4	6.6	58.0

SECTION 6 - PROJECT SAMPLE

C.M.H.C. File	Project	C.M.H.C. Category	Design	Construction	No. of Units	No. of Beds	Area per Bed m² Living	Bsmts	Total	Construction Start	Index	Quality/ Complexity
	Skygate Towers Apt Building 1030 - 16th Avenue S. W.	Rental	12 storey hi-rise	Concrete; masonry	142	183	76.7	-	76.7	Jan '82		Medium
	Simmering Court Apt Building 926 to 928 - 18th Avenue S.W.	Rental	4 storey & bsmt	Timber; concrete bsmt	46	82	58.3	-	58.3	Sept '82		Good
	Glamorganvale Stacked Row Housing, 40 Glamis Drive S.W.	Rental	3 storey; no bsmt	Timber	156	340	48.7	-	48.7	Aug '80		Fair

Notes:
1) Skygate - developed prior to boom turn down; problem project; quality of completion reflects down turn.
2) Simmering Court - good quality project; well designed; up-market features.
3) Glamorganvale - problem project; hit by down turn; high vacancy rate; developer in difficulty; open site; unit access not ideal.

SECTION 6 - PROJECT SCHEDULE OF ACCOMMODATION

Project	Section of N.H.A.	Senior Citizen			Handicapped				Other			
		Batch	1 Bed	2 Bed	1 Bed	2 Bed	3 Bed	4 Bed	1 Bed	2 Bed	3 Bed	4 Bed
Skygate Towers Apt Building 1030 - 16th Avenue S.W.	Rental	-	-	-	-	-	-	-	101	41	-	-
Simmering Court Apt Building 926 - 928 - 18th Avenue S.W.	Rental	-	-	-	-	-	-	-	10	36	-	-
Glamorganvale Stacked Row Housing, 40 Glamis Drive S.W.	Rental	-	-	-	-	-	-	-	-	128	28	-
Totals									111	205	28	-

SECTION 6 - PROJECT COST SUMMARY

Project	Project Cost Actual Land	Soft	Construction	Total	C.D.S. Index	Project Cost To Jan '84 Base Land	Soft	Construction	Total	Beds
Skygate Towers Apartment Building 1030 - 16th Avenue S.W.	2 360 000	1 850 000	7 402 000	11 612 000	249.5 292.9	2 010 310	1 575 879	6 305 220	9 891 409	183
Simmering Court Apartment Building 926 - 928 - 18th Avenue S.W.	1 132 884	570 327	2 488 257	4 191 468	249.5 284.5	993 513	500 164	2 182 144	3 675 821	82
Glamorganvale Stacked Row Housing 40 Glamis Drive S.W.	2 115 000	1 611 000	7 329 000	11 055 000	249.5 241.4	2 188 687	1 667 128	7 584 345	11 440 160	340

SECTION 6 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Skygate	1 bed	101	57 158	4 775	61 933	15 733	77 666	48 688	4 068	52 756	13 402	66 158
292.9	2 bed	41	68 317	4 775	73 092	18 806	91 898	58 194	4 068	62 262	16 019	78 281
	per bed	(183)	46 852	3 705	50 557	12 896	63 453	39 910	3 156	43 066	10 985	54 051
Simmering Court	1 bed	10	41 258	7 904	49 162	17 343	66 505	36 182	6 932	43 114	15 209	58 323
284.5	2 bed	36	63 397	7 904	71 301	26 651	97 952	55 598	6 932	62 530	23 372	85 902
	per bed	(82)	32 865	4 435	37 300	13 816	51 116	28 822	3 889	32 711	12 116	44 827
Glamorganvale	2 bed	128	53 918	1 808	55 726	13 171	68 897	52 168	1 749	53 917	12 743	66 660
241.4	3 bed	28	62 732	1 808	64 540	15 325	79 865	60 695	1 749	62 444	14 828	77 272
	per bed	(340)	25 465	829	26 294	6 221	32 515	24 638	802	25 440	6 019	31 459

6. CALGARY

SECTION 6 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Commercial	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Skygate	1 bed	101	60.5	-	1.3	0.4	0.8	0.1	12.1	75.2	12.5	87.7
	2 bed	41	72.3	-	1.6	0.5	0.9	0.1	14.5	89.9	15.0	104.9
	per bed	(183)	49.6	-	1.1	0.3	0.6	0.1	9.9	61.6	10.3	71.9
Simmering Court	1 bed	10	53.0	-	1.5	0.6	1.1	-	6.5	62.7	9.3	72.0
	2 bed	36	81.4	-	2.2	1.0	1.7	-	10.0	96.3	14.3	110.6
	per bed	(82)	42.2	-	1.2	0.5	0.8	-	5.2	49.9	7.4	57.3
Glamorganvale	2 bed	128	91.4	-	-	-	-	-	-	91.4	11.8	103.2
	3 bed	28	106.3	-	-	-	-	-	-	106.3	13.4	119.7
	per bed	(340)	43.2	-	-	-	-	-	-	43.2	5.5	48.7
Average per bed										51.6	7.7	59.3

Notes

Excludes enclosed parking.

6. Calgary Concrete Framed Apartments - Elemental Comparisons - January 1984 $

Element	56/1 Project			Section 6	Averages	
	5807 2nd St. S.W.	Hari	Snrs. Shalem	Skygate	56/1 Family	56/1 Seniors
Substructure	9.65	19.64	21.67	10.97	14.65	21.67
Structure & Sheathing	106.21	89.62	69.41	111.02	97.92	69.41
Exterior cladding	113.59	64.41	65.08	58.20	89.00	65.08
Interior partitions	66.68	40.13	68.42	40.21	53.41	68.42
Vertical Movement	24.99	18.42	16.99	11.30	21.71	16.99
Interior Finishes	39.88	32.17	45.07	27.91	36.03	45.07
Fittings & Equipment	20.67	22.34	19.88	13.93	21.51	19.88
Electrical	38.28	36.67	43.71	27.86	37.48	43.71
Mechanical	63.96	65.88	73.04	54.35	64.90	73.04
Site Development	7.38	11.95	22.10	31.39	9.67	22.10
Overheads and Profit	46.01	33.96	38.93	3.43	39.97	38.93
Sub-Total	537.30	435.19	484.30	390.57	486.25	484.30
Soft Costs	120.98	102.14	71.40	97.61	111.56	71.40
Sub-Total	658.28	537.33	555.70	488.18	597.81	555.70
Land	159.04	79.95	148.91	124.52	119.49	148.91
Total	817.32	617.28	704.61	612.70	717.30	704.61
Gross Area m^2	8,593 m^2	10,849 m^2	3,792 m^2	16,144 m^2	9,721 m^2	3,792 m^2
No. of Units	117	108	50	142	113	50
Garage within Building	-	1,840	-	2,943	920	-
Cost/m^2 including Garage Space Land	658.28	596.02	555.70	555.78	627.15	555.70
Relationship Cost/m^2	1.19	1.07	1.0	1.0	1.13	1.0
Relationship 1 Bed excl.land	1.0	1.20	1.02	1.30		
Cost/Bed Excluding Land	34,959.00	37,610.00	42,145.00	43,066.00		
Procurement	Turnkey	Trade	Turnkey	Developer		

6. Calgary Timber Framed Row - Comparisons January 1984 $ Base

Factor	56/1 Project		Section 6	Averages		Section 6 Timber Frame Apt.
	Tuxedo	Abbeydale	Glamor Genvale	56/1	6	Simmering Court
No. of Units	33	60	156	47	One	46
No. of Persons Housed	54	180	340	117	Project	82
No. of Persons Per Unit (Av.)	1.6	3.0	2.2	2.5		1.8
Gross Built Area (G.B.A.)	2,323 m^2	9,095 m^2	16,561 m^2	75,709 m^2		6,756 m^2
G.B.A. Excluding Indoor Parking	2,323 m^2	9,095 m^2	16,561 m^2			4,699 m^2
G.B.A. (Av.) Per Unit Excluding Parking	70.4m^2	151.6m^2	106.2m^2	111.0m^2		102.2m^2
G.B.A. Per Person Excluding Parking	43.0m^2	50.5m^2	48.7m^2	46.8m^2		57.3m^2
Relationship; Areas per person	1.0	1.17	1.13			
G.B.A. Excluding parking 2 bed unit	78.3m^2	-	103.2m^2	78.3m^2		(1 Bed) 72.0m^2
G.B.A. Excluding parking 3 bed unit	-	151.6m^2	119.7m^2	151.6m^2		(2 Bed) 110.6m^2
Cost per 2 Bed Unit Incl. Land	41,044.00	-	66,660.00	41,044.00		(1 Bed) 58,323.00
Cost per 2 Bed Unit Excl. Land	24,290.00	-	53,917.00	24,290.00		(1 Bed) 43,114.00
Cost per 3 Bed Unit Incl. Land	-	63,404.00	77,272.00	63,404.00		(2 Bed) 85,902.00
Cost per 3 Bed Unit Excl. Land	-	45,786.00	62,444.00	21,135.00		(2 Bed) 62,530.00
Cost/m^2 Incl. Land	525.17	418.28	689.94	471.73		544.06
Cost/m^2 Excl. Land	) 311.13	302.05	557.94	) 306.59		397.00
Cost/m^2 Excl. Land and Parking	)			)		502.97
Relationship Incl. Land	1.26	1.0	1.65			
Relationship Excl. Land	) 1.03	1.0	1.85			
Relationship Excl. Land & Parking	)					
Cost/bed Excl. Land	13,384.00	15,262.00	25,440.00	14,323.00		32,711.00
Relationship						
Procurement	Turnkey	Turnkey	Developer			Developer

6. Calgary Timber Framed Row Elemental Comparison January 1984 $

Element	56/1 Project		Section 6	Averages		Section 6
	Tuxedo	Abbeydale II	Glamor Ganvale	56/1	6	Timber Frame Apt. Simmering Court
Basement & Foundation	15.67	31.37	17.92	23.51	17.92	56.33
Structural Framing & Sheathing	28.67	30.62	62.97	29.65	62.97	42.19
Exterior Finish	35.54	41.49	107.72	38.51	107.72	37.90
Interior Doors	8.41	9.56	9.35	8.99	9.35	12.33
Vertical Movement	0.38	0.28	17.48	0.33	17.48	11.03
Interior Finishes	38.61	37.84	43.44	38.23	43.44	32.97
Fittings & Equipment	30.58	20.70	59.85	25.64	59.85	23.40
Mechanical	42.81	34.28	61.34	38.55	61.34	49.33
Electrical	18.34	13.30	24.34	15.81	24.34	23.36
Site Development	14.53	7.03	12.42	10.78	12.42	5.58
Overheads and Profit	20.26	19.67	40.57	19.97	40.57	28.55
Sub-Total	253.80	246.14	457.40	249.97	457.40	322.97
Soft Costs	57.33	55.91	100.54	56.62	100.54	74.03
Sub-Total	311.13	302.05	557.94	306.59	557.94	397.00
Land	214.04	116.23	132.00	165.14	132.00	147.06
Total	525.17	418.28	689.94	471.73	689.94	544.06
Gross Area m^2	2,323 m^2	9,095 m^2	16,561 m^2	5,709 m^2	16,561 m^2	6,756 m^2
No. of Units	33	60	156	47	156	46
Garage within Building	-	-	-	-	-	2,057 m^2
Cost/m^2 Including Garage Space Land	311.13	302.05	557.94	306.59	557.94	502.97
Relationship Cost/m^2	1.03	1.0	1.85			
Relationship 2 Bed excluding land	1.0	-	2.21			
Relationship 3 Bed excluding land	-	1.0	1.36			
Cost/Bed excluding land	13,384.00	15,262.00	25,440.00			32,711.00
Procurement	Turnkey	Turnkey	Developer			Developer

6. Calgary Concrete Frame Apartments - Comparisons January 1984 $ Base

	56/1 Project			Section 6	Averages
Element	5807 2nd St. S.W.	Hari	Snrs. Shalem	Skygate	Family 56/1
No. of Units	117	108	50	142	113
No. of Persons Housed	156	155	50	183	156
No. of Persons per Unit (Av.)	1.3	1.4	1.0	1.3	1.4
Gross Built Area (G.B.A.)	8,593 m^2	10,849 m^2	3,792 m^2	16,144 m^2	9,721 m^2
G.B.A. Excl. Indoor Parking	8,593 m^2	9,009 m^2	3,792 m^2	8,801 m^2	
G.B.A. (Av.)Per Unit Excl. Parking	73.4 m^2	83.4 m^2	75.8 m^2	93.0 m^2	78.4 m^2
G.B.A. Per Person Excl. Park.	55.1 m^2	58.1 m^2	75.8 m^2	72.1 m^2	56.6 m^2
Relationship; Areas Per Person	1.0	1.05	1.4	1.3	
G.B.A. Excluding Parking; 3 Bed Unit	60.5 m^2	74.6 m^2	75.0 m^2	87.7 m^2	67.6 m^2
Cost per 3 Bed Unit Including Land	50,614.00	55,801.00	52,534.00	66,158.00	53,208.00
Cost per 3 Bed Unit Excluding Land	40,443.00	48,613.00	41,374.00	52,756.00	44,528.00
Relationship - Incl. Land	1.0	1.10	1.04	1.3	
Relationship - Excl. Land	1.0	1.2	1.02	1.3	
Cost/m^2 Including Land	817.32	617.28	704.61	612.70	717.30
Cost/m^2 Excluding Land	658.28	537.33	555.70	488.18	597.81
Cost/m^2 Excl.land & Parking	658.28	596.82	555.70	555.78	627.15
Relationship - Incl. Land	1.33	1.01	1.15	1.0	
Relationship - Excl. Land	1.35	1.22	1.14	1.0	
Relationship - Excl. Land and Parking	1.18	1.07	1.0	1.0	
Cost/Bed Excluding Land	34,959.00	37,610.00	42,145.00	43,066.00	36,285.00
Relationship	1.0	1.08	1.20	1.23	
Procurement	Turnkey	Trad	Turnkey	Developer	

VANCOUVER

6. VANCOUVER

PROJECT SAMPLE - SECTION 56/1

C.M.H.C. File	Project	C.M.H.C. Category	Design	Construction	No. of Units	No. of Beds	Area per bed m² Living	Bsmts	Total	Construction Start	Index
36.531.812	Walnut Grove Co-op; 96 Ave at 208 St. Langley, B.C.	Co-op	2 storey row	Wood frame	40	110	40.9	-	40.9	Apr 83	249.5
36.782.415	Vancouver Indian Centre 225 - 275 N Templeton St. Vancouver	Private Non-profit	3½ storey apt; bsmt parking	Wood frame	18	33	45.6	-	45.6	June 83	254.5
36.782.118	Kinross Creek Housing Co-op Enclave 20, Champlain Heights, Vancouver	Co-op	1, 2 & 3 storey row	Wood frame	69	163	44.1	-	44.1	Oct 82	259.5
36.531.911	Heather Place, 13 & 14th Avenue at Willow & Heather St., Vancouver	Public Non-profit	2 storey stacked row; bsmt parking	Wood frame	86	188	29.4	-	29.4	Oct 82	259.5
36.531.051	Marina Housing Co-op; Area 10B False Creek, Vancouver	Co-op	7 storey hi-rise	Concrete	63	126	50.2	-	50.2	Sep 81	254.3
36.531.424	Birch Housing Co-op; 7062 - 138 St. at 70th Avenue, Surrey	Co-op	2 storey row	Wood frame	54	126	42.6	-	42.6	Sep 81	254.3
36.782.555	Delta Green Village Housing Co-op; #5 at Bath Road, Richmond	Co-op	1 & 2 storey row	Wood frame	72	188	38.3	-	38.3	Mar 83	249.5
36.762.548	Burnaby Court; 7459 - 12th Avenue, Burnaby	Private Non-profit	2 storey row; bsmt parking	Wood frame	27	66	37.7	-	37.7	Apr 83	249.5
36.531.952	Salal Housing Co-op; 600 Falcon Drive, Port Moody	Co-op	1 & 2 storey row; bsmts	Wood frame	60	120	40.0	11.7	51.7	Feb 83	254.4
				Totals	489	1 120	368.8	11.7	380.5		
				Average	54.3	124.4	41.0	1.3	42.3		

SECTION 56/1 - PROJECT SCHEDULE OF ACCOMMODATION

Total	Project	Section of N.H.A.	Senior Citizens bach	1 bed	2 bed	Handicapped 1 bed	2 bed	3 bed	4 bed	Other 1 bed	2 bed	3 bed	4 bed
44	Wellington Apartments	CRSP	-	-	-	-	-	-	-	-	-	44	-
28	Fern Leaf Place	CRSP	-	-	-	-	-	-	-	-	-	28	-
54	Hazelmere Court Apartments	Old CRSP	-	-	-	-	-	-	-	40	14	-	-
63	Hambry Court Apartments	CRSP	-	-	-	-	-	-	-	24	39	-	-
38	Camrose Development Ltd.	CRSP	-	-	-	-	-	-	-	-	-	38	-
57	550 West 13th Avenue	CRSP	-	-	-	-	-	-	-	9 bach 36-1 bed	12	-	-
42	Carolina Court	CRSP	-	-	-	-	-	-	-	29	13	-	-
326		Totals	-	-	-	-	-	-	-	138	78	110	-
										9 bach 129-1 bed			

SECTION 56/1 - PROJECT SCHEDULE OF ACCOMMODATION

Total	Project	Section of N.H.A.	Senior Citizens bach	Senior Citizens 1 bed	Senior Citizens 2 bed	Handicapped 1 bed	Handicapped 2 bed	Handicapped 3 bed	Handicapped 4 bed	Other 1 bed	Other 2 bed	Other 3 bed	Other 4 bed
40	Walnut Grove	Co-op	-	-	-	-	-	-	-	-	15	20	5
IR	Vancouver Indian Centre	Private Non-Profit	-	-	-	-	-	-	-	3	15	-	-
69	Kinross Creek	Co-op	-	-	-	-	-	-	-	9	30	26	4
86	Heather Place	Public Non-Profit	-	-	-	3	2	-	-	3	56	22	-
63	Marina Housing	Co-op	-	-	-	2	2	-	-	10	37	12	-
54	Birch Housing	Co-op	-	-	-	-	-	-	-	-	36	18	-
72	Delta Green Village	Co-op	-	-	-	-	-	-	-	8	16	44	4
27	Burnaby Court	Private Non-Profit	-	-	-	-	-	-	-	-	14	12	-
60	Salal Housing	Co-op	-	-	-	-	-	-	-	14	26	16	-
		Totals	-	-	-	7	7	-	-	47	245	170	13
		Average	-	-	-	1.0	1.0	-	-	6.7	35.0	24.3	1.9

SECTION 56/1 - PROJECT COST SUMMARY

Project	Land	Project Cost Actual Soft	Construction	Total	Index	Project Cost to Jan '84 Base Land	Soft	Construction	Total
Walnut Grove	652 940	333 857	2 430 863	3 417 660	237.2/249.5	620 751	317 398	2 311 025	3 249 174
Vancouver Indian Centre	255 475	171 687	837 900	1 265 062	237.2/254.5	238 109	160 016	780 943	1 179 068
Kinross Creek	2 003 116	528 208	3 557 946	6 089 270	237.2/259.5	1 830 979	482 817	3 252 196	5 565 992
Heather Place	2 555 598	315 247	4 692 155	7 563 000	237.2/259.5	2 335 984	288 156	4 288 937	6 913 077
Marina Housing	603 463	656 498	4 471 105	5 731 066	237.2/254.3	562 884	612 353	4 170 452	5 345 689
Birch Housing	1 039 049	963 565	2 707 993	4 710 607	237.2/254.3	969 180	898 772	2 525 898	4 393 850
Delta Green Village	1 793 744	462 407	3 504 223	5 760 374	237.2/249.5	1 705 315	439 611	3 331 470	5 476 396
Burnaby Court	499 013	228 115	1 289 015	2 016 143	237.2/249.5	474 412	216 869	1 225 468	1 916 749
Salal Housing	1 176 237	451 087	3 227 411	4 854 735	237.2/254.4	1 096 711	420 589	3 009 205	4 526 505

SECTION 56/1 - PROJECTS COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Walnut Grove	2 bed	15	59 332	2 973	62 305	14 653	76 958	56 407	2 826	59 233	13 931	73 164
	3 bed	20	69 000	2 973	71 973	17 016	88 989	65 598	2 826	68 424	16 177	84 601
	4 bed	5	75 162	2 973	78 135	18 565	96 700	71 457	2 826	74 283	17 650	91 933
	per bed	(110)	24 053	1 081	25 134	5 936	31 070	22 867	1 028	23 895	5 643	29 538
Marina	1 bed Hcap	2	69 488	5 566	75 054	8 482	83 536	64 764	5 188	69 952	7 905	77 857
	2 bed Hcap	2	77 797	5 566	83 363	9 534	92 897	72 509	5 188	77 697	8 886	86 583
	1 bed	10	66 884	5 566	72 450	8 467	80 917	62 338	5 188	67 526	7 891	75 417
	2 bed	37	73 757	5 566	79 323	9 337	88 660	68 743	5 188	73 931	8 702	82 633
	3 bed	12	90 377	5 566	95 943	11 441	107 384	84 234	5 188	89 422	10 663	100 085
	per bed	(126)	37 912	2 783	40 695	4 789	45 484	35 363	2 596	37 959	4 467	42 426

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Kinross Creek	1 bed	9	41 504	2 504	44 008	21 247	65 255	37 937	2 289	40 226	19 421	59 647
	2 bed	30	47 353	2 504	49 857	24 238	74 095	43 284	2 289	45 573	22 155	67 728
	3 bed	26	70 234	2 504	72 738	35 950	108 688	64 199	2 289	66 488	32 861	99 349
	4 bed	4	73 286	2 504	75 790	37 513	113 303	66 988	2 289	69 277	34 289	103 566
	per bed	(163)	24 008	1 060	25 068	12 289	37 357	21 945	969	22 914	11 233	34 147
Heather Place	1 bed Hcap	3	48 893	4 522	53 415	27 054	80 469	44 691	4 133	48 824	24 729	73 553
	2 bed Hcap	2	62 054	4 522	66 576	34 338	100 914	56 721	4 133	60 854	31 387	92 241
	1 bed	3	43 629	4 522	48 151	24 141	72 292	39 880	4 133	44 013	22 067	66 080
	2 bed	56	50 774	4 522	55 296	28 095	83 391	46 411	4 133	50 544	25 681	76 225
	3 bed	22	62 432	4 522	66 954	34 546	101 500	57 067	4 133	61 200	31 577	92 777
	per bed	(188)	24 566	2 069	26 635	13 594	40 229	22 455	1 891	24 346	12 426	36 772

SECTION 36/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Vancouver Indian Centre	1 bed	3	46 254	2 979	49 233	12 363	62 596	43 110	2 777	45 887	11 523	57 410
	2 bed	15	54 480	2 979	57 459	14 559	72 018	50 777	2 777	53 554	13 569	67 123
	per bed	(33)	28 969	1 625	30 594	7 742	38 336	27 000	1 515	28 515	7 216	35 731
Burnaby Court	2 bed Hcap	1	50 238	7 356	57 594	18 043	75 637	47 761	6 993	54 754	17 154	71 908
	2 bed	14	43 920	7 356	51 276	16 655	67 931	41 755	6 993	48 748	15 834	64 582
	3 bed	12	54 450	7 356	61 806	20 650	82 456	51 766	6 993	58 759	19 632	78 391
	per bed	(66)	19 978	3 009	22 987	7 561	30 548	18 993	2 861	21 854	7 188	29 042
Delta Green Village	1 bed	8	30 916	3 679	34 595	14 982	49 577	29 392	3 498	32 890	14 243	47 133
	2 bed	16	45 898	3 679	49 577	22 241	71 818	43 635	3 498	47 133	21 145	68 278
	3 bed	44	55 986	3 679	59 665	27 129	86 794	53 226	3 498	56 724	25 792	82 516
	4 bed	4	64 161	3 679	67 840	31 091	98 931	60 998	3 498	64 496	29 559	94 055
	per bed	(188)	19 690	1 409	21 099	9 541	30 640	18 719	1 340	20 059	9 071	29 130
Birch Housing	2 bed	36	63 188	2 353	65 541	18 524	84 065	58 939	2 195	61 134	17 278	78 412
	3 bed	18	70 541	2 353	72 894	20 677	93 571	65 798	2 195	67 993	19 287	87 280
	per bed	(126)	28 131	1 008	29 139	8 247	37 386	26 239	940	27 179	7 692	34 871

SECTION 56/1 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Salal Housing	1 bed Hcap	2	44 283	2 941	47 224	12 787	60 011	41 289	2 742	44 031	11 923	55 954
	2 bed Hcap	2	57 394	2 941	60 335	16 794	77 129	53 514	2 742	56 256	15 659	71 915
	1 bed	14	40 091	2 941	43 032	12 268	55 300	37 380	2 742	40 122	11 439	51 561
	2 bed	26	57 465	2 941	60 406	19 180	79 586	53 580	2 742	56 322	17 883	74 205
	3 bed	18	77 709	2 941	80 650	27 915	108 565	72 455	2 742	75 197	26 028	101 225
	per bed	(120)	29 184	1 470	30 654	9 802	40 456	27 211	1 371	28 982	9 139	37 721

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Walnut Grove	2 bed	15	86.2	-	-	2.5	-	-	88.7	12.1	100.8
	3 bed	20	100.1	-	-	2.9	-	-	103.1	14.1	117.2
	4 bed	5	109.2	-	-	3.2	-	-	112.4	15.4	127.8
	per bed	(110)	34.9	-	-	1.0	-	-	35.9	5.0	40.9
Marina	1 bed Hcap	2	65.3	-	1.4	0.5	-	11.8	79.0	10.1	89.1
	2 bed Hcap	2	73.4	-	1.6	0.6	-	13.2	88.8	11.3	100.1
	1 bed	10	65.2	-	1.4	0.5	-	11.7	78.8	10.1	88.9
	2 bed	37	71.9	-	1.5	0.6	-	12.9	86.9	11.1	98.0
	3 bed	12	88.1	-	1.9	0.7	-	15.9	106.0	13.6	119.6
	per bed	(126)	36.9	-	0.8	0.3	-	6.6	44.6	5.6	50.2
Kinross Creek	1 bed	9	65.3	-	-	0.6	-	-	65.9	10.3	76.2
	2 bed	30	74.5	-	-	0.7	-	-	75.2	11.7	86.9
	3 bed	26	110.5	-	-	1.0	-	-	111.5	17.4	128.9
	4 bed	4	115.3	-	-	1.0	-	-	116.3	18.1	134.4
	per bed	(163)	37.8	-	-	0.3	-	-	38.1	6.0	44.1

6. VANCOUVER

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Heather Place	1 bed Hcap	3	52.0	-	0.5	0.7	-	1.1	54.3	4.7	59.0
	2 bed Hcap	2	66.0	-	0.7	0.9	-	1.4	69.0	5.9	74.9
	1 bed	3	46.4	-	0.5	0.6	-	0.9	48.4	4.2	52.6
	2 bed	56	54.0	-	0.6	0.7	-	1.1	56.4	4.8	61.2
	3 bed	22	66.4	-	0.7	0.9	-	1.4	69.4	5.9	75.3
	per bed	(188)	26.1	-	0.3	0.4	-	0.3	27.3	2.3	29.6
Vancouver Indian Centre	1 bed	3	48.9	3.4	1.9	1.9	-	8.7	64.8	7.9	72.7
	2 bed	15	57.6	4.1	2.3	2.3	-	10.3	76.6	9.3	85.9
	per bed	(33)	30.6	2.2	1.2	1.2	-	5.5	40.7	4.9	45.6
Burnaby Court	2 bed Hcap	1	76.8	1.9	1.3	1.2	-	-	81.2	8.8	90.0
	2 bed	14	70.9	1.8	1.2	1.1	-	-	75.0	8.1	83.1
	3 bed	12	87.9	2.2	1.5	1.4	-	-	93.0	10.1	103.1
	per bed	(66)	32.2	0.8	0.6	0.5	-	-	34.1	3.6	37.7

SECTION 56/1 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Delta Green Village	1 bed	8	51.8	-	0.2	0.6	-	-	52.6	7.5	60.1
	2 bed	16	76.9	-	0.3	1.0	-	-	78.2	11.1	89.3
	3 bed	44	93.8	-	0.3	1.2	-	-	95.3	13.5	108.8
	4 bed	4	107.5	-	0.4	1.3	-	-	109.2	15.5	124.7
	per bed	(188)	33.0	-	0.1	0.4	-	-	33.5	4.8	38.3
Birch Housing	2 bed	36	92.8	1.4	0.2	1.4	-	-	95.8	11.3	107.1
	3 bed	18	103.6	1.6	0.2	1.5	-	-	106.9	12.6	119.5
	per bed	(126)	41.3	0.6	0.1	0.6	-	-	42.6	5.0	47.6
Salal Co-op	1 bed Hcap	2	56.8	-	-	1.4	-	-	58.2	9.2	67.4
	2 bed Hcap	2	74.6	-	-	1.8	-	-	76.4	12.1	88.5
	1 bed	14	54.5	-	-	1.3	-	-	55.8	8.8	64.6
	2 bed	26	85.2	-	-	2.1	-	-	87.3	13.8	101.1
	3 bed	16	124.0	-	-	3.0	-	-	127.00	20.1	147.1
	per bed	(120)	43.5	-	-	1.1	-	-	44.6	7.0	51.6

SECTION 6 - PROJECT SAMPLE

C.M.H.C. File	Project	C.M.H.C. Category	Design	Construction	No. of Units	No. of Beds	Area per bed m² Living	Bsmts	Total	Construction Start	Index
35.327.972	Wellington Apartments, 9346 - 122nd Street Surrey	Rental CRSP	2 storey row	Wood frame	44	132	40.0	-	40.0	Dec 82	254.4
37.902.178	Fern Leaf Place, 1210 Falcon 210 Falcon Drive, Coquitlam	Rental CRSP	2 storey row; basement	Wood frame	28	84	48.7	16.3	65.0	Dec 83	237.2
35.327.980	Hazelmere Court Apartments 1595 East 6th Avenue Vancouver	Rental Old CRSP	3 storey apt; bsmt parking	Wood frame	54	68	52.3	-	52.3	May 83	249.5
38.611.034	Hembry Court Apartments 6105 Kingsway Burnaby	Rental CRSP	3 storey apt; bsmt parking	Wood frame	63	102	55.8	-	55.8	May 83	249.5
37.902.236	Camrose Development Ltd. 20653 Thorne Avenue Maple Ridge	Rental CRSP	2 storey row	Wood frame	38	114	38.9	-	38.9	Aug 83	254.5
38.611.109	550 West 13th Avenue Vancouver	Rental CRSP	3 storey apt; bsmt parking	Wood frame	57	69	56.6	-	56.6	Feb 84	237.2
37.902.160	Caroline Court 570 East 8th Avenue Vancouver	Rental CRSP	3 storey apt; bsmt parking	Wood frame	42	55	53.0	-	53.0	May 83	249.5
				Totals	326	624	345.3	16.3	361.6		
				Average	46.6	89.1	49.3	2.3	51.6		

SECTION 6 - PROJECT COST SUMMARY

Project	Project Cost Actual Land	Soft	Construction	Total	Index	Project Cost to Jan '84 Base Land	Soft	Construction	Total
Wellington Apartments	857 500	256 882	2 370 618	3 485 000	237.2 254.4	799 524	239 514	2 210 340	3 249 378
Fern Leaf Place	636 495	253 471	1 812 535	2 702 501	237.2 237.2	636 495	253 471	1 812 535	2 702 501
Hazelmere Court Apartments	826 879	345 913	2 489 117	3 661 909	237.2 249.5	786 115	328 860	2 366 407	3 481 382
Hambry Court Apartments	1 103 000	363 800	2 885 000	4 351 800	237.2 249.5	1 048 624	345 865	2 742 774	4 137 263
Camrose Development Ltd.	573 177	181 900	1 936 095	2 691 172	237.2 254.5	534 424	169 602	1 805 195	2 509 221
550 West 13th Avenue	1 511 000	355 000	2 973 090	4 839 090	237.2 237.2	1 511 000	355 000	2 973 090	4 839 090
Cardina Court	761 650	225 765	1 665 487	2 652 902	237.2 249.5	724 102	214 635	1 583 381	2 522 118

SECTION 6 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Hambry Court	1 bed	24	36 177	9 461	45 638	15 041	60 679	34 394	8 995	43 389	14 300	57 689
	2 bed	39	45 757	9 461	55 218	19 026	74 244	43 501	8 995	52 496	18 088	70 584
	per bed	(102)	26 008	5 843	31 851	10 814	42 665	24 726	5 555	30 281	10 281	40 562
Carolina Court	1 bed	29	31 943	7 408	39 351	15 401	54 752	30 368	7 043	37 411	14 642	52 053
	2 bed	13	50 289	7 408	57 697	24 236	81 933	47 810	7 043	54 853	23 041	77 894
	per bed	(55)	28 729	5 657	34 386	13 848	48 234	27 313	5 378	32 691	13 165	45 856
550 West 13th Avenue	Bach	9	34 437	7 221	41 658	17 842	59 500	34 437	7 221	41 658	17 842	59 500
	1 bed	36	50 600	7 221	57 821	26 215	84 036	50 600	7 221	57 821	26 215	84 036
	2 bed	12	65 413	7 221	72 634	33 890	106 524	65 413	7 221	72 634	33 890	106 524
	per bed	(69)	42 268	5 965	48 233	21 899	70 132	42 268	5 965	48 233	21 899	70 132
Hazelmere Court	1 bed	40	43 972	6 308	50 280	14 575	64 855	41 804	5 997	47 801	13 856	61 657
	2 bed	14	52 537	6 308	58 845	17 420	76 265	49 947	5 997	55 944	16 561	72 505
	per bed	(68)	36 683	5 009	41 692	12 160	53 852	34 875	4 762	39 637	11 561	51 198
Wellington	3 bed	44	56 525	3 191	59 716	19 489	79 205	52 703	2 975	55 678	18 171	73 849
	per bed	(132)	18 842	1 063	19 905	6 496	26 401	17 568	991	18 559	6 057	24 616

SECTION 6 - PROJECT COSTS PER UNIT

Project	Unit Type	No.	Project Cost/Unit Actual: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land	Project Cost/Unit to Jan '84 Base: Cons & Soft	Parking	Total Excluding Land	Land	Total Including Land
Camrose	3 bed	38	52 679	3 058	55 737	15 084	70 821	49 098	2 850	51 948	14 059	66 007
	per bed	(114)	17 560	1 019	18 579	5 028	23 607	16 366	950	17 316	4 686	22 002
Fern Leaf	3 bed	28	69 556	4 230	73 786	22 732	96 518	69 556	4 230	73 786	22 732	96 518
	per bed	(84)	23 185	1 410	24 596	7 577	32 173	23 185	1 410	24 595	7 577	32 172

SECTION 6 - AREAS PER UNIT OF ACCOMMODATION

Project	Unit Type	No.	Units	Building Services	Communal Services	Communal Facilities	Admin	Circ	Total Net	Structure	Total Gross
Hambry Court	1 bed	24	60.8	-	1.8	-	-	9.9	72.5	5.0	77.5
	2 bed	39	76.9	-	2.2	-	-	12.5	91.6	6.5	98.1
	per bed	(102)	43.7	-	1.3	-	-	7.1	52.1	3.6	55.7
Carolina Court	1 bed	29	45.5	-	1.6	-	-	8.1	55.2	4.4	59.6
	2 bed	13	71.6	-	2.5	-	-	12.7	86.8	7.0	93.8
	per bed	(55)	40.9	-	1.4	-	-	7.3	49.6	4.0	53.6
550 West 13th Avenue	Bach	9	35.8	-	0.7	-	-	6.2	42.7	3.7	46.4
	1 bed	36	52.6	-	1.1	-	-	9.1	62.8	5.3	68.1
	2 bed	12	68.0	-	1.4	-	-	11.8	81.2	6.9	88.1
	per bed	(69)	43.9	-	0.9	-	-	7.6	52.4	4.5	56.9
Hazelmere Court	1 bed	40	50.2	-	-	0.5	-	7.3	58.0	5.3	63.3
	2 bed	14	60.0	-	-	0.6	-	8.7	69.3	6.4	75.7
	per bed	(68)	41.0	-	-	0.4	-	6.1	48.4	4.4	52.8
Wellington	3 bed	44	104.4	-	-	1.3	-	-	105.7	14.2	119.9
	per bed	(132)	34.8	-	-	0.4	-	-	35.2	4.8	40.0
Camrose	3 bed	38	104.2	-	-	-	-	-	104.2	12.6	116.8
	per bed	(114)	34.7	-	-	-	-	-	34.7	4.2	38.9
Fern Leaf Place	3 bed	28	171.2	-	-	-	-	-	171.2	23.7	194.9
	per bed	(84)	57.1	-	-	-	-	-	57.1	7.9	65.0

6. Vancouver Timber Framed Row Comparison January 1984 $ Base

	56/1 Project							Section 6 Projects			Averages	
Element	Walnut Grove	Kinross Creek	Heather Place	Birch Housing	Delta Green	Bby. Court	Salal	Wellington Apts.	Fern Leaf Place	Camrose	56/1	6
No. of Units	40	69	86	54	72	27	60	44	28	38	58	37
No. of Persons Housed	110	163	188	126	188	66	120	132	84	114	137	110
No. of Persons per Unit (Av.)	2.8	2.4	2.2	2.3	2.6	2.4	2.0	3.0	3.0	3.0	2.4	3.0
Gross Built Area (G.B.A.)	4494 m^2	7181 m^2	7844 m^2	6003 m^2	7194 m^2	3744 m^2	6197 m^2	5277 m^2	5457 m^2	4438 m^2	6094 m^2	5057 m^2
G.B.A. Excl. Indoor Parking	4494 m^2	7181 m^2	5568 m^2	6003 m^2	7194 m^2	2491 m^2	6197 m^2	5277 m^2	5457 m^2	4438 m^2	5590 m^2	5057 m^2
G.B.A. (Av.)Per Unit Excl. Parking	112.4m^2	104.1m^2	64.7m^2	112.2m^2	99.9m^2	92.3m^2	103.3m^2	119.9m^2	194.9m^2	116.8m^2	96.4m^2	136.7m^2
G.B.A. Per Person Excl. Park.	40.9m^2	44.1m^2	29.6m^2	47.6m^2	38.3m^2	37.7m^2	51.6m^2	40.0m^2	65.0m^2	38.9m^2	40.8m^2	46.0m^2
Relationship; Areas Per Person	1.38	1.49	1.0	1.61	1.29	1.27	1.74	1.35	2.2	1.31	1.0	1.13
G.B.A. Excluding Parking; 3 Bed Unit	117.2m^2	128.9m^2	75.3m^2	119.5m^2	108.8m^2	103.1m^2	147.1m^2	119.9m^2	194.9m^2	116.8m^2	114.3m^2	143.9m^2
Cost per 3 Bed Unit Including Land	84601.00	99349.00	92777.00	87280.00	82516.00	78391.00	101225.00	73849.00	96518.00	66007.00	89448.00	78791.00
Cost per 3 Bed Unit Excluding Land	68424.00	66488.00	61200.00	67993.00	56724.00	58759.00	75197.00	55678.00	73786.00	51948.00	64969.00	60471.00
Relationship - Incl. Land	1.08	1.27	1.18	1.11	1.05	1.0	1.29	0.94	1.23	0.84	1.0	0.9
Relationship - Excl. Land	1.21	1.17	1.08	1.20	1.0	1.04	1.33	0.98	1.30	0.92	1.0	0.9
Cost/m^2 Including Land	723.06	775.10	881.32	731.94	761.25	511.95	730.44	615.76	495.24	565.24	730.72	558.75
Cost/m^2 Excluding Land	584.93	520.12	583.51	570.49	524.20	385.24	553.46	464.26	378.60	444.82	531.71	429.23
Cost/m^2 Excl.land & Parking	584.93	520.12	759.15	570.49	524.20	502.15	553.46	464.26	378.60	444.82	573.50	429.23
Relationship - Incl. Land	1.41	1.51	1.72	1.43	1.49	1.0	1.43	1.20	0.97	1.10	1.0	0.76
Relationship - Excl. Land	1.52	1.35	1.51	1.48	1.36	1.0	1.44	1.21	0.98	1.15	1.0	0.81
Relationship - Excl. Land and Parking	1.17	1.04	1.51	1.14	1.04	1.0	1.10	0.92	0.75	0.89	1.0	0.75
Cost/Bed Excluding Land	23895.00	22914.00	24346.00	27179.00	20059.00	21854.00	28582.00	18559.00	24595.00	17316.00	24118.00	20157.00
Relationship	1.19	1.14	1.21	1.35	1.0	1.09	1.42	0.93	1.23	0.86	1.0	0.84
Procurement	Turnkey	Trad	Turnkey	Turnkey	Turnkey	Turnkey	Trad		Developer			

6. Vancouver Timber Framed Row Comparison January 1984 $

Element	56/1 Project: Walnut Grove	Kinross Creek	Heather Place	Birch Housing	Delta Green	Bby. Court	Salal	Section 6 Projects: Wellington Apts.	Fern Leaf Place	Camrose	Averages: 56/1	6
Basement & Foundation	75.90	25.23	30.39	38.69	57.21	21.96	66.22	45.76	45.41	42.95	45.09	44.71
Structural Framing & Sheathing	52.53	77.89	72.84	87.33	74.69	63.55	80.04	103.43	65.82	92.41	72.70	87.21
Exterior Finish	65.96	68.18	45.79	33.91	33.62	24.78	54.12	40.16	50.60	37.67	46.62	42.80
Interior Doors	23.13	12.57	14.10	6.96	9.47	13.48	14.67	8.25	4.60	7.75	12.48	6.87
Vertical Movement	4.80	9.39	2.12	4.20	4.28	6.84	16.55	4.98	6.16	4.66	6.88	5.27
Interior Finishes	38.73	60.04	49.06	52.69	47.52	48.02	53.81	62.41	24.34	58.57	50.10	48.43
Fittings & Equipment	61.43	31.43	24.29	20.20	27.01	19.33	43.76	37.67	26.20	29.13	32.49	31.00
Mechanical	51.70	42.63	24.72	19.42	29.01	38.68	50.27	35.89	38.48	33.67	36.63	36.02
Electrical	24.40	36.17	31.92	24.08	27.42	47.00	24.62	32.61	34.82	3.60	80.80	32.68
Site Development	52.47	49.63	30.39	56.71	82.15	13.98	42.69	12.87	7.35	31.81	46.86	17.18
Overheads and Profit	63.19	39.73	120.13	76.58	70.71	29.70	38.84	35.34	28.37	37.38	62.70	33.70
Sub-Total	514.24	452.89	446.55	420.77	463.09	327.32	485.59	418.87	332.15	406.60	444.35	385.87
Soft Costs	70.63	67.23	136.96	149.72	61.11	57.92	67.87	45.39	46.45	38.22	87.35	43.35
Sub-Total	584.87	520.12	583.51	570.49	524.20	385.24	553.46	464.26	378.60	444.82	531.70	429.22
Land	138.13	254.98	297.81	161.45	237.05	126.71	176.98	151.50	116.64	120.42	199.02	129.52
Total	723.00	775.10	881.32	731.94	761.25	511.95	730.44	615.76	495.24	565.24	730.72	558.74
Gross Area m^2	4494 m^2	7181 m^2	7844 m^2	6003 m^2	7194 m^2	3744 m^2	6197 m^2	5277 m^2	5457 m^2	4438 m^2	6094 m^2	5057 m^2
No. of Units	40	69	86	54	72	27	60	44	28	38	58	37
Garage within Building	-	-	2283 m^2	-	-	1244 m^2	-	-	-	-	504 m^2	-
Cost/m^2 including Garage	584.93	520.12	759.15	570.49	524.20	502.15	553.46	464.26	378.60	444.82	573.82	429.22
Space Land Relationship Cost/m^2												
Relationship 3 Bed excl.land	1.21	1.17	1.08	1.20	1.0	1.04	1.33	0.98	1.30	0.92	1.0	0.93
Cost/Bed excluding land	23695.00	22914.00	24346.00	27179.00	20059.00	21854.00	28582.00	18559.00	24595.00	17316.00	24118.00	20157.00
Procurement	Turnkey	Trad		Turnkey			Trad		Developer			

6. Vancouver Timber Framed Apartment — Comparison January 1984 $ Base

Factor	56/1 Project	Section 6 Projects				Averages		Section 56/1
	Van. Indian Centre	Hazelmere Court	Hambry Court	555 West 13th Ave.	Carolina Court	56/1	6	Concrete Frame Apt. Marina Place
No. of Units	18	54	63	57	42	18	54	63
No. of Persons Housed	33	68	102	69	55	33	74	126
No. of Persons Per Unit (Av.)	1.8	1.3	1.6	1.2	1.3	1.8	1.37	2.0
Gross Built Area (G.B.A.)	1,848 m^2	5,434 m^2	8,535 m^2	6,061 m^2	4,761 m^2	1,848 m^2	6,198 m^2	8,163 m^2
G.B.A. Excluding Indoor Parking	1,510 m^2	3,590 m^2	5,745 m^2	3,930 m^2	3,035 m^2	1,510 m^2	4,075 m^2	6,343 m^2
G.B.A. (Av.) Per Unit Excluding Parking	83.9 m^2	66.5 m^2	91.2m^2	69.0m^2	72.3m^2	83.9m^2	74.75m^2	100.7 m^2
G.B.A. Per Person Excluding Parking	45.8 m^2	52.8 m^2	56.3m^2	57.0m^2	55.2m^2	45.8m^2	55.3m^2	50.3 m^2
Relationship; Areas per person	1.0	1.15	1.23	1.24	1.21	1.0	1.21	1.10
G.B.A. Excluding parking 1 bed unit	72.7 m^2	63.3 m^2	77.5 m^2	68.1 m^2	59.6 m^2	72.7 m^2	67.1 m^2	88.9 m^2
G.B.A. Excluding parking 2 bed unit	85.9 m^2	75.7 m^2	98.1 m^2	88.1 m^2	92.8 m^2	85.9 m^2	88.9 m^2	98.0 m^2
Cost per 1 Bed Unit Incl. Land	57,410.00	61,657.00	57,689.00	84,036.00	52,053.00	57,410.00	63,859.00	75,417.00
Cost per 1 Bed Unit Excl. Land	45,887.00	47,801.00	43,389.00	57,821.00	37,411.00	45,887.00	46,606.00	67,526.00
Cost per 2 Bed Unit Incl. Land	67,123.00	72,505.00	70,584.00	106,524.00	77,894.00	67,123.00	81,877.00	82,633.00
Cost per 2 Bed Unit Excl. Land	53,554.00	55,944.00	52,496.00	72,634.00	54,853.00	53,554.00	58,982.00	73,931.00
Relationship - Incl. land 2 Bed	1.0	1.08	1.05	1.59	1.16	1.0	1.22	1.23
Relationship - Excl. land 2 Bed	1.0	1.05	0.98	1.36	1.02	1.0	1.10	1.38
Cost/m^2 Incl. Land	638.02	640.66	484.74	798.40	529.74	638.02	613.39	654.87
Cost/m^2 Excl. Land	509.17	495.99	361.88	549.10	377.65	509.17	446.16	585.92
Cost/m^2 Excl. Land and Parking	590.05	660.56	438.99	742.11	494.96	590.05	584.16	702.46
Relationship Incl. Land	1.32	1.32	1.0	1.65	1.09	1.0	0.96	1.03
Relationship Excl. Land	1.41	1.37	1.0	1.52	1.04	1.0	0.88	1.15
Relationship Excl. Land & Parking	1.0	1.12	0.74	1.26	0.84	1.0	0.99	1.19
Cost/bed Excl. Land	28,515.00	39,637.00	30,281.00	48,233.00	32,691.00	28,515.00	37,711.00	37,959.00
Relationship	1.0	1.39	1.06	1.69	1.15	1.0	1.32	1.33
Procurement	P.M.	Turnkey		Developer				

6. Vancouver Timber Framed Apartment Elemental Comparison January 1984 $

Element	56/1 Project	Section 6 Projects				Averages		Section 56/1
	Van. Indian Centre	Hazelmere Court	Hambry Court	555 West 13th Ave.	Carolina Court	56/1	6	Concrete Frame Apt. Marina Place
Basement & Foundation	37.02	21.79	19.39	27.97	22.70	37.02	~~22.96~~ 21.97	48.80
Structural Framing & Sheathing	67.08	65.87	60.17	69.43	76.48	67.08	~~68.49~~ 68.49	105.65
Exterior Finish	33.90	30.22	22.94	27.07	22.72	33.90	~~25.74~~ 25.74	32.90
Interior Doors	18.18	13.62	12.44	14.71	13.31	18.18	13.52	9.30
Vertical Movement	23.97	7.07	4.77	7.45	9.92	23.97	7.30	21.25
Interior Finishes	52.50	44.79	44.07	51.86	44.97	52.50	46.42	77.52
Fittings & Equipment	28.10	30.18	16.35	25.66	19.49	28.10	22.92	19.84
Mechanical	44.89	44.27	16.37	27.20	39.57	44.89	31.85	33.93
Electrical	26.48	22.96	24.86	30.74	21.94	26.48	25.12	44.50
Site Development	24.96	14.97	7.80	15.34	10.23	24.96	~~12.08~~ 11.20	14.13
Overheads and Profit	65.50	139.73	92.20	167.10	49.24	65.50	~~112.07~~ 120.45	103.00
Sub-Total	422.58	435.47	321.36	464.53	332.57	422.58	~~366.36~~ 394.98	510.90
Soft Costs	86.59	60.52	40.52	64.51	45.08	86.59	~~52.65~~ 51.17	75.02
Sub-Total	509.17	495.99	361.88	529.04	377.65	509.17	~~441.14~~ 446.15	585.92
Land	128.85	144.67	122.86	261.59	152.09	128.85	~~170.30~~ 167.23	68.95
Total	638.02	640.66	484.74	700.63	529.74	638.02	~~611.44~~ 613.38	654.87
Gross Area m^2	1,848 m^2	5,434 m^2	8,535 m^2	6,061 m^2	4,761 m^2	1,848 m^2	6,198 m^2	8,763 m^2
No. of Units	18.	54.	63.	57.	42.	18.	54.	63.
Garage within Building	338 m^2	1,844 m^2	2,790 m^2	2,131 m^2	1,726 m^2	338 m^2	2,123 m^2	1,820 m^2
Cost/m^2 including Garage Space Land	590.05	660.56	438.99	715.04	494.96	590.05	~~588.22~~ 584.16	702.46
Relationship Cost/m^2	1.0	1.12	0.74	1.21	0.84	1.0	0.99	1.19
Relationship 1 Bed excluding land	1.0	1.04	0.95	1.21	0.82	1.0	1.02	
Relationship 2 Bed excluding land	1.0	1.04	0.98	~~48 234~~ 1.21	1.02	1.0	1.10	
Cost/Bed excluding land	28,515.00	39,637.00	30,281.00	~~47,838.00~~	32,691.00	~~37,711.80~~		
Procurement	P.M.	Turnkey		Developer		28515.00	37711	

7. OPERATING COST CONSIDERATIONS

In this section factors which have an impact upon operating costs are addressed using the project data assembled in section 8.

1. Average comparative areas of units common to the sample in each design category by City. The table below shows these areas summarized:

City	A Size of Unit Common To Sample							
	Wood Frame Row		Wood Frame Apt.		Concrete Frame Apt.		Concrete Frame Snrs.	
	56/1	6	56/1	6	56/1	6	56/1	6
Montreal	3 Bed 150.9	3 Bed 165.5	2 Bed 109.0	2 Bed 92.7	-	-	2 Bed 95.4	2 Bed 84.2
Toronto	3 Bed 161.9	3 Bed 150.2	-	-	2 Bed 98.6	2 Bed 148.9	-	-
Calgary	3 Bed 151.6	3 Bed 119.7	-	-	1 Bed 67.6	1 Bed 87.7		
Vancouver	3 Bed 114.3	3 Bed 143.9	1 Bed 72.7	1 Bed 67.1				

The summary does not indicate a consistent pattern of higher areas in the case of 56/1 versus section 6 or vice versa. However, when individual projects are compared, the section 6 projects tend to be approximately 10% larger than their section 56/1 equivalents. As most operating costs relate to area and volume these costs will be proportionally higher on the Section 6 projects.

7. OPERATING COST CONSIDERATIONS (Continued)

2. Area of enclosing external elements per m^2 of gross floor area.

Montreal Project Section 56/1	Area m^2 Roof	Walls	Total	Floor Area m^2	Skin Area Per m^2 of Gross Floor Area
Co-op Mercier	424	1,230	1,654	1,436	1.15
Quatre Soleils	1,014	743	1,757	1,282	1.37
Co-op Feu Vert	925	2,621	3,546	2,514	1.41
Les Retrouvailles	1,837	5,470	7,307	11,027	0.66
Residence Ukrainienne	1,640	1,806	3,446	7,086	0.49
Co-op Haitienne	2,978	7,550	10,528	7,148	1.47
Co-op La Tannerie	2,579	10,877	13,456	5,282	2.55
Co-op St. Sulpice	1,958	5,757	7,715	5,768	1.34
Co-op Les Bordages	1,765	2,567	4,332	3,644	1.19
Co-op La Source	-	-	-	-	-
Total			53,741	45,187	1.19

Section 6

1956 Lionel Groulx	71	212	283	189	1.50
614 Des Segneurs	71	212	283	189	1.50
595 Chatham	71	212	283	189	1.50
1700 Louis Joseph Gauthier	85	137	222	183	1.21
Maison Prevert	505	996	1,501	1,585	0.95
La Fleurolie	527	2,856	3,383	6,608	0.51
Rue Goyer et Bedford	3,494	3,382	6,876	8,312	0.83
12004 Rue Ontario Est	395	1,273	1,668	1,580	1.06
Total			14,499	18,835	0.77

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Section 56.1 and Section 6
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7. OPERATING COST CONSIDERATIONS (Continued)

2. Area of enclosing external elements per m^2 of gross floor area.

Toronto Project Section 56/1	Roof	Area m^2 Walls	Total	Floor Area m^2	Skin Area Per m^2 of Gross Floor Area
Kingfinch Co-op	7,113	15,155	22,268	15,794	1.41
Riverdale Co-op	1,057	2,354	3,411	4,393	0.78
W. Lyon McKenzie Co-op	7,215	17,561	24,776	24,032	1.03
Innisfree Co-op	5,540	9,767	15,307	18,335	0.83
Oxford Street/West.Rd.	3,841	9,178	13,019	23,508	0.55
Winona Co-op	1,049	6,460	7,509	8,182	0.92
Const. Hamilton Co-op	1,124	2,537	3,661	4,467	0.82
Toronto Lithuanian	1,253	5,523	6,776	10,187	0.67
Comfort Living Co-op	3,275	7,636	10,911	19,739	0.55
BNAI Brith 4266 Bathhurst	1,894	5,111	7,005	10,841	0.65
Total	33,361	81,282	114,043	139,478	0.82

Section 6

132 Front St.	3,010	10,092	13,102	28,281	0.46
King & Bathhurst	7,860	14,327	22,187	25,524	0.87
33 Dundal Dr.	1,731	3,370	5,101	4,686	1.09
45 & 55 Provence Trail	2,087	5,062	7,149	8,399	0.85
Wellington & Mill	3,550	4,293	7,843	11,582	0.68
Bay & Edward	4,057	20,226	24,283	57,443	0.42
441 Jarvis	3,545	18,769	22,314	49,085	0.46
Total	32,307	69,672	101,979	185,000	0.55

7. OPERATING COST CONSIDERATIONS (Continued)

2. Area of enclosing external elements per m^2 of gross floor area.

Calgary Project Section 56/1	Area m^2 Roof	Walls	Total	Floor Area m^2	Skin Area Per m^2 of Gross Floor Area
Tuxedo	1,072	2,158	3,230	3,323	0.97
Abbeydale II	4,222	7,092	11,314	9,095	1.24
5807 2nd St. S.W.	658	5,596	6,254	8,593	0.73
Shalem Society	1,188	2,165	3,353	3,792	0.88
Hari Housing	2,508	6,030	8,538	10,849	0.79
Total	9,648	23,041	32,689	35,652	0.92

Section 6

Skygate Towers	2,842	6,444	9,286	16,144	0.58
Simmering Court	1,026	2,452	3,478	6,756	0.51
Glamorganvale	9,852	17,406	27,258	16,561	1.65
Total	13,720	26,302	40,022	39,461	1.01

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Section 56.1 and Section 6
Comparative Cost Study

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7. OPERATING COST CONSIDERATIONS (Continued)

2. Area of enclosing external elements per m^2 of gross floor area.

Vancouver Project Section 56/1	Area m^2 Roof	Walls	Total	Floor Area m^2	Skin Area Per m^2 of Gross Floor Area
Walnut Grove	2,671	4,727	7,398	4,494	1.65
Indian Centre	417	1,363	1,780	1,848	0.96
Kinross Creek	3,800	6,028	9,828	7,181	1.37
Heather Place	2,762	7,102	9,864	7,844	1.26
Marina Housing	1,000	5,371	6,371	7,960	0.80
Birch Housing	3,073	7,096	10,169	6,003	1.69
Delta Green	4,286	7,618	11,904	7,194	1.66
Burnaby Court	1,338	2,189	3,527	3,744	0.94
Salal Housing	3,243	8,016	11,259	6,197	1.82
Total	22,590	49,510	72,100	52,465	1.37

Section 6

Wellington Apts.	2,985	4,562	7,547	5,277	1.43
Fernleaf Place	2,975	5,873	8,848	5,457	1.62
Camrose Development	2,455	4,513	6,968	4,438	1.57
Hazelmere Courts	1,042	3,124	4,166	5,434	0.77
Hambry Courts	2,129	3,562	5,691	8,535	0.67
555 West 13th Ave.	1,374	2,756	4,130	6,061	0.68
Carolina Court	900	2,391	3,291	4,671	0.71
Total	13,860	26,781	40,641	39,873	1.02

All Centres

56/1	273,173	272,782	1.0
6	197,614	283,169	0.70

7. OPERATING COST CONSIDERATIONS (Continued)

From the above it can be seen that the 56/1 project samples show consistently higher wall to floor ratios than the section 6 projects; the only exception being Calgary where the section 6 sample of 3 projects is heavily weighted by a single highly articulated row housing development.

The differences reflect a number of design related factors the net results of which are higher capital costs, on a simple quantum basis, and higher operating and maintenance costs on the basis that both operating and maintenance costs relate to the surface area of enclosing elements.

3. R Value of enclosing external elements.

With a few notable exceptions in both the 56/1 and Section 6 categories, insulation levels in all projects are very close; hardly surprising given current building codes and federal and provincial standards.

4. Glass area as a percentage of the area of enclosing external elements.

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Section 56.1 and Section 6
Comparative Cost Study

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7. OPERATING COST CONSIDERATIONS (Continued)

4. (Continued)

In summary these areas are as follows:

City		Glass Area m^2 (A)	Area of Enclosing Elements m^2 (B)	% Glazed A/B
Montreal	56/1	3,951	53,741	7.4
	6	719	14,491	5.0
Toronto	56/1	9,886	114,643	8.6
	6	17,248	101,979	16.9
Calgary	56/1	2,679	32,689	8.2
	6	3,234	40,022	8.1
Vancouver	56/1	5,778	65,729	8.8
	6	3,796	40,641	9.3

In summary although the glazed areas of the Montreal, Calgary and Vancouver section 56/1 and section 6 projects are close and unlikely to be of any consequence in operating cost comparisons carried out at this level of detail. In the Toronto sample the section 6 projects have glazed areas close to twice those of the section 56/1 projects. This can be attributed to the four large high rise luxury and semi-luxury projects included in the sample, and will have a significant impact on the operating costs of these high rise projects.

7. OPERATING COST CONSIDERATIONS (Continued)

5. Detailing and quality of in-place construction.

Approximately 80% of the 56/1 projects were designed and the construction overseen by a prime consultant retained by the client group; construction usually being carried out on a stipulated sum basis. Under such an arrangement a complete set of tender documents is prepared, all details worked out, approvals received and the work of the various trades inspected on site to ensure compliance with drawings and specifications.

The remainder of the 56/1 projects and all the Section 6 projects were developed, for the most part, using a turnkey form of contract under which the design consultants typically provide a less comprehensive service and under which much of the work is frequently carried out by a subsidiary of the development company.

As a rule the product of the first process shows better attention to details such as air seal use of materials and systems and the like. Consequently such a product will tend to outperform a product produced with less attention to detail, in operating and maintenance costs.